### **Title of Instructional Materials**: Spring Board

**Grade Level**: Grade 7

### Summary of Spring Board

Overall Rating:		Important Mathematical Ideas:	<ul><li> Weak (1-2)</li><li> Moderate (2-3)</li><li> Ctropg (2, 4)</li></ul>
	Strong (3-4)		Strong (3-4)
for the average or even high abili uninteresting and activities woul level students. The textbook is n students have a prior knowledge importantly, Spring Board does n standards and did not include an	ries for the most mature, high ed GT teacher. This is not a textbook ty seventh grade student. It's d need to be modified for gradeot well-developed and assumes the of vocabulary and skills. Most ot meet the Common Core y supplemental materials. This is	Summary / Justification / Evide	nce:
strongly not recommended for m	ladie school students.		
Skills and Procedures:	<ul><li> Weak (1-2)</li><li> Moderate (2-3)</li><li> Strong (3-4)</li></ul>	Mathematical Relationships:	<ul><li> Weak (1-2)</li><li> Moderate (2-3)</li><li> Strong (3-4)</li></ul>
Summary / Justification / Evid	ence:	Summary / Justification / Evide	nce:



## Instructional Materials Analysis and Selection

**Phase 3:** Assessing Content Alignment to the Common Core State Standards for Mathematics

Overall Rating: 1/2 Skills not well developed

Grade 7



### Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics

A project of

The Indiana Education Roundtable, The Indiana Department of Education,

The Charles A. Dana Center at The University of Texas at Austin

2010-2011

## Instructional Materials Analysis and Selection Assessing Content Alignment to the Common Core State Standards for Mathematics

This tool provides educators with a structured way to make informed decisions when selecting mathematics instructional materials. In particular, it can help you become more knowledgeable about the Common Core State Standards for Mathematics so you can select instructional materials aligned with these standards.

This resource can also be used with the Dana Center's larger 4-phase Instructional Materials Analysis and Selection toolset: Phase 1: Studying the Standards, Phase 2: Narrowing the Field of Instructional Materials, Phase 3: Assessing Subject-Area Content Alignment, and Phase 4: Assessing Vertical Alignment of Instructional Materials. The particular resource you hold is a phase 3 tool that has been customized for assessing the alignment of instructional materials with the Common Core State Standards for Mathematics. Note that in 2009, the Dana Center developed a similar tool for Indiana educators to use in analyzing the alignment of instructional materials to Indiana's Academic Standards for Mathematics.

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### About the development of this resource

This tool, Instructional Materials Analysis and Selection: Assessing Content Alignment to the Common Core State Standards for Mathematics, draws on the Dana Center's nearly 20 years of experience in strengthening education and has been used extensively in Texas and, increasingly, other states, to help local school districts and schools select instructional materials aligned with their standards. Development and production of the Instructional Materials Analysis toolset was supported by the Charles A. Dana Center.

This resource consists of a set of 15 individual grade-level / course documents that span kindergarten through the third year of high school mathematics. There is a document for each grade from kindergarten through 8, and six documents for high school mathematics (one each for the three courses in the traditional high school pathway Algebra I, Geometry, Algebra II; and one each for the three courses in the integrated high school pathway Mathematics I, Mathematics II, and Mathematics III).\* At the request of various states and other entities, the Dana Center has populated this *Instructional Materials Analysis and Selection* tool with standards from the *Common Core State Standards for Mathematics* for use by local districts in selecting instructional materials aligned with these standards.

Note that the copyright of the Common Core State Standards for Mathematics is held by the National Governors Association Center for Best Practices and the Council of Chief State School Officers (collectively, NGA Center/CCSSO). This use of the CCSS for Mathematics is done under the CCSS Terms of Use, available at www.corestandards.org/terms-of-use. Specifically, this work is done under the Terms of Use "non-exclusive, royalty-free license to copy, publish, distribute, and display the Common Core State Standards for non-commercial purposes that support the Common Core State Standards Initiative." For a complete copy of the Common Core State Standards for Mathematics as well as the CCSS for Mathematics, Appendix A: Designing high school mathematics courses based on the Common Core State Standards, go to www.corestandards.org/the-standards.

October 2010 release.

We welcome your comments and suggestions for improvements—please send to dana-txshop@utlists.utexas.edu or the address in the copyright section above.

### About the Charles A. Dana Center at The University of Texas at Austin

The Dana Center works to raise student achievement in K-16 mathematics and science, especially for historically underserved populations. We do so by providing direct service to school districts and institutions of higher education; to local, state, and national education leaders; and to agencies, nonprofits, and professional organizations concerned with strengthening American education.

The Center was founded in 1991 at The University of Texas at Austin. We carry out our work by supporting high standards and building system capacity; collaborating with key state and national organizations to address emerging issues; creating and delivering professional supports for educators and education leaders; and writing and publishing education resources, including student supports. Our staff of more than 60 has worked with dozens of school systems in nearly 20 states and with 90 percent of Texas's more than 1,000 school districts. We are committed to ensuring that the accident of where a child attends school does not limit the academic opportunities he or she can pursue.

For more information about our programs and resources, see our homepage at www.utdanacenter.org. To access our resources (many of them free), see our products index at www.utdanacenter.org/products. And to learn more about our professional development—and sign up online—go to www.utdanacenter.org/pd.

<sup>\*</sup> For the high school course sequences, we relied on the Common Core State Standards Mathematics Appendix A: Designing High School Mathematics Courses Based on the Common Core State Standards, developed for the CCSS initiative by Achieve, Inc., which convened and managed the Achieve Pathways Group.

### **Acknowledgments**

Unless otherwise noted, all staff listed here are affiliated with the Dana Center.

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#### Our thanks

We gratefully acknowledge the more than 100 school districts and thousands of educators who have informed the development of these resources.

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Rachel Jenkins, consulting editor
Tom McVey, professional development team lead
and print production manager
Phil Swann, senior designer

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### Introduction

Phase 1: Studying the Standards

Phase 2: Narrowing the Field of Instructional Materials

### Phase 3: Assessing Mathematical Content Alignment

The purpose of Phase 3: Assessing Mathematical Content Alignment is to determine the degree to which the materials are aligned to the standards (content and processes). In Phase 3, participants conduct an in-depth review of the 2-3 instructional materials selected in Phase 2. The Phase 3 process requires selection committee members to use set criteria in order to determine a rating for each sample, to cite examples to justify their score for each sample, and to document standards that are missing or not well-developed in the instructional materials examined.

#### Implementation

As a whole group, selection committee members should practice applying the Phase 3 rubric. The purpose of the whole group practice is to promote inter-rater reliability and calibration.

In Phase 3 it is not important to analyze every page, section, or chapter of a resource. It is important to identify an area, topic, or big idea for the deep content analysis of Phase 3 (e.g. development of equivalent fractions, addition of whole numbers, development of proportionality...). The identified area, topic, or big idea will be used for all the instructional materials considered in Phase 3. The area, topic, or big idea can be identified through the use of student achievement data, curriculum priorities/challenges, or ideas that typically make up a greater portion of instruction in particular grade levels/courses. In most cases, Phase 3 will identify the one resource that is best aligned.

### Step-by-Step Instructions

- 1. Use your current adoption to practice using the Phase 3 rubric. Select one big idea to focus your analysis (see note above for selecting the area, topic, or big idea).
- 2. Independently, committee members use their current resource, the identified big idea (and associated pages in that resource), and the Phase 3 rubric to score and document the extent to which the material (content and processes) aligns to the standards.
- 3. In small groups, committee members share their scoring and justifications. Small groups come to consensus on how the current resource would score on this big idea.
- 4. Each small group shares with the large group their score. Repeat the consensus building to generate a large group score on this big idea.
- 5. Clarify any misunderstandings about how to apply the rubric before committee members begin to use Phase 3 rubric on the selected materials.

- 6. Based on the size of the selection committee, determine the number of areas, topics, or big ideas to be examined for each grade/course.

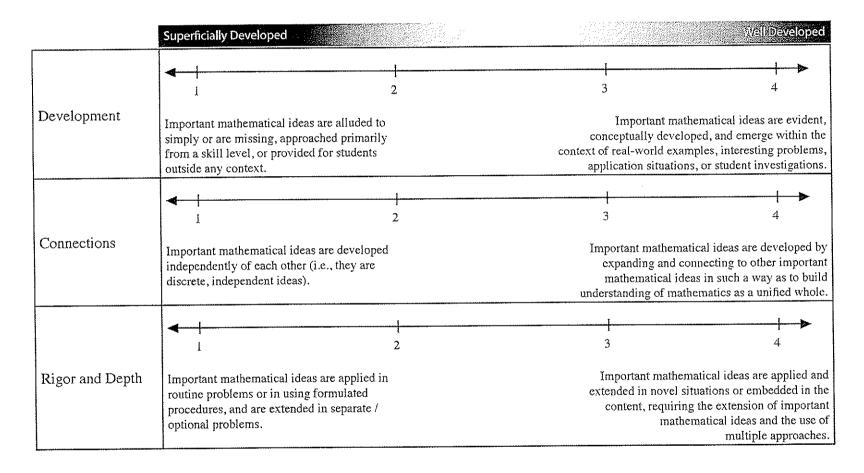
  If the group size is large, more areas, topics, big ideas can be examined within each grade level/course.
- 7. Make sure committee members have multiple copies of the Phase 3 rubric.
- 8. Committee members apply the Phase 3 rubric for each of the materials.
- 9. Establish a time line for groups to complete and submit Phase 3 documentation.
- 10. Establish a data collection and analysis process to attain a rating for each resource.

### Materials and Supplies

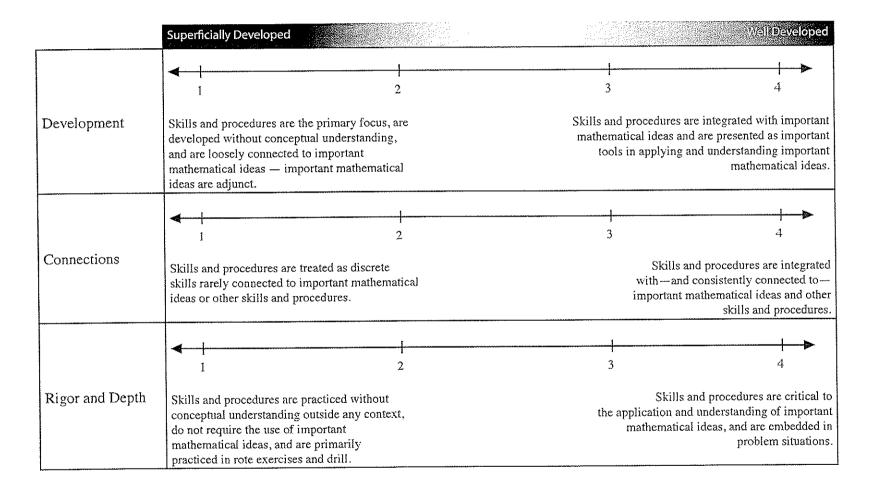
- Phase 3: Assessing Mathematical Content Alignment black line master multiple copies per person
- Currently used instructional resource
- The 2 to 4 instructional materials selected in Phase 2

### Phase 4: Assessing Vertical Alignment of Instructional Materials

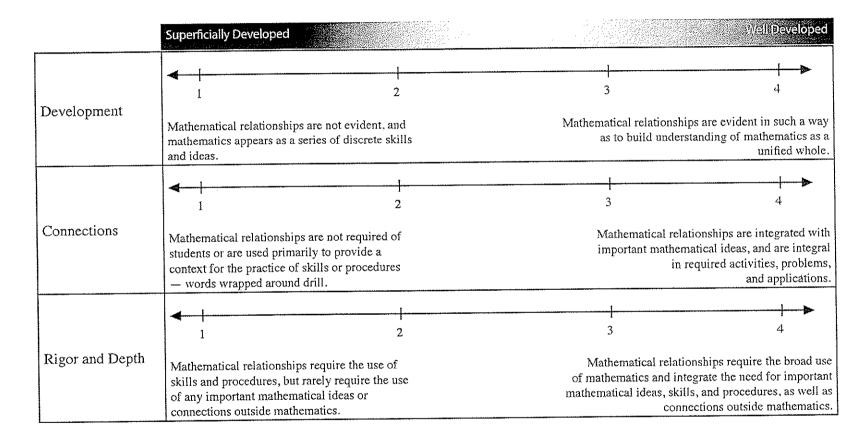
### Important Mathematical Ideas: Understanding the scoring



### Skills and Procedures: Understanding the scoring



### Mathematical Relationships: Understanding the scoring



Reviewed By:	
-	
Title of Instructional Materials:	

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	
Title of Instructional Materials:	

### 2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



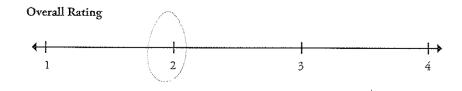
Reviewed By:	
Title of Instructional Materials:	

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	
Title of Instructional Materials:	

### 4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	
•	
Title of Instructional Materials:	

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Overall Rating

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	 	 
Title of Instructional Materials:		 

### 6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	 	 
Title of Instructional Materials:		

### 7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see  $7 \times 8$  equals the well remembered  $7 \times 5 + 7 \times 3$ , in preparation for learning about the distributive property. In the expression  $x^2 + 9x + 14$ , older students can see the 14 as  $2 \times 7$  and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see  $5 - 3(x - y)^2$  as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	
Title of Instructional Materials:	

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation (y-2)/(x-1)=3. Noticing the regularity in the way terms cancel when expanding (x-1)(x+1),  $(x-1)(x^2+x+1)$ , and  $(x-1)(x^3+x^2+x+1)$  might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), section(s), or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):



Reviewed By:	
Title of Instructional Materials:	

Analyze proportional relationships and use them to solve real-world and mathematical problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.					
7.RP.1  Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For	Important Mathematical Ideas	3 4	2	1 3	<b>→</b> 4	
example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction <sup>1/2</sup> / <sub>1/4</sub> miles per hour, equivalently 2 miles per hour.	Skills and Procedures			t	! \$	
		N. J.	2	3	4	
	Mathematical Relationships	1	2	3	4	
	Summary / Justification / I	Evidence				
Indicate the chapter(s), section(s), and/or page(s) reviewed.						
5-2	Portions of the domain, cl developed in the instruction			missing or n	ot well	
	Overall Rating	<del>(1)</del>		3	—— <del> </del> 4	

The Charles A. Dana Center

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Reviewed By:	
Title of Instructional Materials:	

Summary and documentation of how the domain, cluster, and standard are Analyze proportional relationships and use them to solve real-world and met. Cite examples from the materials. mathematical problems. 7.RP.2a Important Mathematical Ideas 2. Recognize and represent proportional relationships between quantities. 3 a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the Skills and Procedures origin. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well 2-6, Unit & Practice, 3-8 developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Analyze proportional relationships and use them to solve real-world and Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials. mathematical problems. 7.RP.2b Important Mathematical Ideas 2. Recognize and represent proportional relationships between quantities. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. Skills and Procedures Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

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Reviewed By:	
Title of Instructional Materials	

Analyze proportional relationships and use them to solve real-world and Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials. mathematical problems. 7.RP.2c Important Mathematical Ideas 2. Recognize and represent proportional relationships between quantities. c. Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the Skills and Procedures number of items can be expressed as t = pn. 3 Mathematical Relationships 3 Summary / Justification / Evidence Fours. Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Analyze proportional relationships and use them to solve real-world and Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials. mathematical problems. 7.RP.2d Important Mathematical Ideas 2. Recognize and represent proportional relationships between quantities. d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate. Skills and Procedures Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. 2-6, Unit 2 Practice, 3-8 2-Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Analyze proportional relationships and use them to solve real-world and mathematical problems.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
7.RP.3  Use proportional relationships to solve multistep ratio and percent problems.  Examples: simple interest, tax, markups and markdowns, gratuities and	Important Mathematical Ideas  1 2 3 4
commissions, fees, percent increase and decrease, percent error.	Skills and Procedures  1 2 3 4
	Mathematical Relationships  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.  Unit 1 - Getfing Ready, 1-6, EA 1-2,  Unit 1	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
5-6e+fine Ready, 5-1, 5-2, EA 5-1, EA 5-2, Unit 5 Proctice, Unit 5 Strds R	Overall Rating  1 1 1 1 1 2 3 4

Reviewed By:	
Title of Instructional Materials:	

Apply and extend previous understandings of operations with fractions Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. 7.NS.1a Important Mathematical Ideas 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make Skills and Procedures 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. 7.NS.1b Important Mathematical Ideas 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. b. Understand p + q as the number located a distance |q| from p, in the Skills and Procedures positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Unit I Practice, Unit I Reflection Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. met. Cite examples from the materials. 7.NS.1c Important Mathematical Ideas 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. c. Understand subtraction of rational numbers as adding the additive Skills and Procedures inverse, p - q = p + (-q). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Reviewed By:

Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM - 7.NS

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. Important Mathematical Ideas 7.NS.1d Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. d. Apply properties of operations as strategies to add and subtract Skills and Procedures rational numbers. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Reviewed By:	
Title of Instructional Materials:	

2

### MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM - 7.NS

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. 7.NS.2a Important Mathematical Ideas 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the Skills and Procedures properties of operations, particularly the distributive property, leading to products such as (-1)(-1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing realworld contexts. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. EA 1-1, 1-5, 1-6, 1-7, EA 1-2, Unit Practice, Unit 1 Reflection, Unit 1 Strass Rev, 2-2, EA 2-1, 2-4, EA 2-2, 2-5, 2-6, EA 2-3, Unit a fractice, Unit a Reflection, Unit a Strass Rev. Portions of the domain, cluster, and standard that are missing on not well developed in the instructional materials (if any):

Reviewed By:

### MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM - 7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

#### 7.NS.2b

- Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
  - b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then  $-(p/q) \neq (-p)/q = p/(-q)$ . Interpret quotients of rational numbers by describing real-world contexts.

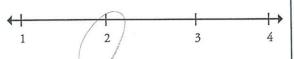
Indicate the chapter(s), section(s), and/or page(s) reviewed.

1-3, 1-5, 1-7, EA 1-2, Unit 1 Practice, 2-3, 2-4, EA 2-2, 2-6, EA 2-3, Unit 2 Practice, Unit 2 Strobs Rev, 3-6, 3-7, 3-8, EA 3-3, Unit 3 Practice, Unit 3 Strobs Rev

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas

Title of Instructional Materials:



Skills and Procedures

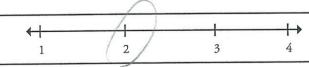


Mathematical Relationships



Summary / Justification / Evidence

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):



Reviewed By:	

Title of Instructional Materials:	
Title Of High actional Materials.	

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. 7.NS.2c Important Mathematical Ideas 2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. c. Apply properties of operations as strategies to multiply and divide rational numbers. Skills and Procedures Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. EA 1-1, 1-5, 1-6, 1-7, EA 1-2, Unit 12-pactice, Unit 1 Reflection, Unit 1 Strds Rev, 2-2, EA 2-1, 2-4, EA 2-2, 2-5, 2-6, EA 2-3, Unit 2 Practice, Unit 2 Reflection, Unit 2 Strds Rev Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Summary and documentation of how the domain, cluster, and standard are Apply and extend previous understandings of operations with fractions met. Cite examples from the materials. to add, subtract, multiply, and divide rational numbers. 7.NS.2d Important Mathematical Ideas 2. Apply and extend previous understandings of multiplication and division 3 and of fractions to multiply and divide rational numbers. d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or Skills and Procedures eventually repeats. Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

Apply and extend previous understandings of operations with fractions o add, subtract, multiply, and divide rational numbers.	Summary and documentation met. Cite examples from the	n of how materials	the domain, cluste	er, and standa	aro are
<b>7.NS.3</b> Solve real-world and mathematical problems involving the four operations with rational numbers. <sup>1</sup>	Important Mathematical Ideas	1	$\frac{1}{2}$	3	4
	Skills and Procedures	1	2	3	4
	Mathematical Relationships	<b>←</b>  1	2	3	4
1 Computations with rational numbers extend the rules for manipulating fractions to complex fractions.  Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / E	vidence			
Unit 1 Overview, Unit 1 Getting Read, 1-2, Unit 1 Overview, Unit 1 Getting Read, 1-2, Unit 1-3, 1-4, EA 1-1, 1-5, 1-6, 1-7, EA 1-8, Unit 1-8, Unit 1 Strids Rev, Unit 2 Ove Unit 2-6, 2-1, 2-2, EA 2-1, 2-3, 2-4, EA 2-2, Unit 2-6, 2-6, 2-7, 2-6, 2-7		uster, and onal mate	standard that are rials (if any):	missing or n	ot well
8-5, 2-6, 34 2-3, 2011 13-56, 3-6, 3-7.	Overall Rating	<del> </del>		1	

The Cha A. Dana Center

Reviewed By:	
Title of Instructional Materials:	

# MATHEMATICS: GRADE 7 - EXPRESSIONS AND EQUATIONS - 7.EE

Use properties of operations to generate equivalent expressions.	Summary and documentation met. Cite examples from the	on of how the materials.	ne domain, clust	er, and stand	lard are
7.EE.1  Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	Important Mathematical Ideas	1	2	3	4
	Skills and Procedures	42	2	3	<del></del>
	Mathematical Relationships	1	1 2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / E  Portions of the domain, cli developed in the instruction	uster, and s	tandard that are	missing or n	ot well
	Overall Rating	<b>←</b>   1	1 2	3	<del>  }</del> 4

Reviewed By:	
Title of Instructional Materials:	

# MATHEMATICS: GRADE 7 - EXPRESSIONS AND EQUATIONS - 7.EE

Ise properties of operations to generate equivalent expressions.	Summary and documentatio met. Cite examples from the	n of how t materials	the domain, cluste	r, and Standa	iu aic
7.EE.2	Important Mathematical Ideas	1	$ \begin{pmatrix} 1 \\ 2 \end{pmatrix}$	3	4
Understand that rewriting an expression in dillictor to the problem and how the quantities in it are related. For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as imultiply by 1.05."	Skills and Procedures  1 2	3	<del> →</del> 4		
	Mathematical Relationships	<b>← </b> 1	2	3	<del>{</del>
	Summary / Justification / E	vidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.	TAME			missing of B	ot well
Unit 1 Over , Unit 1-68, 1-1, 1-2, 1-3, 1-4 EA 1-1, 1-5, Unit 2 over, 2-1, 2-5	Portions of the domain, cl developed in the instruction	uster, and onal mater	standard that are rials (if any):	meanig or m	
	Overall Rating	<del></del>			
		1	2	3	4

Ti	tle of Instructional Materials:
MATHEMATICS: GRADE 7 - EXPRESSIONS AND EQUATIONS - 7.E	E
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
7.EE.3	Important Mathematical Ideas
Solve multi-step real-life and mathematical problems posed with positive	1 $2$ $3$ $4$
and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to	
calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and	
estimation strategies. For example: If a woman making \$25 an hour gets a	Skills and Procedures  1 2 3 4
10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you want to place a towel bar 9 3/4 inches long	
in the center of a door that is 27 1/2 inches wide, you will need to place the	
bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.	Mathematical Relationships
and oxage comparesons	1 /2 / 3 4
	Summary / Justification / Evidence
	Rest Journe
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Ness 60
unit 1 over., Unit 1-GR, 1-1, 1-2, 1-3,	Portions of the domain, cluster, and standard that are missing or not well
1-4, EA 1-1, 1-5, 1-6, 1-7, EA 1-2, Unit 1 Prac, Unit 1 Ref, Unit 1 Strobs Rev.,	developed in the instructional materials (if any):
1 Prac, Unit 1 Kef, Unit 1 Stras Keu.	
Unit a over, Unit 2-GR, 2-1, 2-2, EA 2-1,	
2-3, 2-4, EA 2-2, 2-5, 2-6, EA 2-3, Unit.	
2-3, 2-4, EA 2-2, 2-5, 2-6, EA 2-3, Unit 2 Prac., Unit a Ref., Unit 2 Stros Rev., Unit	Overall Rating
3 over, Unit 3-GR, 3-1, 3-2, 3-3, EA 3-1, 3-4,	1 2 3 4
3-5, EA 3-2,3-6,3-7, 3-8,3-9, EA 3-3, Un	it 3 Praci,
Unit 3 Ref., Unit 3 Stros Rev., Unit 4 Over, Uni	+4-GR,
The Charles A Dana Center 3, EA 4-1, 4-4, 4-5, EA 4-2, Uni	+ 4 Prac, Unit 4 Ref., Unit 4 Stads Rev,, 31
The Charles A. Dana Center Unit 5 OR, 5-1, 5-2, 5-3, Unit 5 Over., Unit 5 OR, 5-1, 5-2, 5-3,	EA 5-1, 5-4, 5-5, EA 5-2, Unit 5 Prac.

Reviewed By:	
Title of Instructional Materials	3:

# MATHEMATICS: GRADE 7 - EXPRESSIONS AND EQUATIONS - 7.EE

olve real-life and mathematical problems using numerical and gebraic expressions and equations.	Summary and documentatio met. Cite examples from the	materials.	ani, ciustei, and	
EE.4a  Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve	Important Mathematical Ideas	1	2	3 4
problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations	Skills and Procedures		2	3 4
an arithmetic solution, identifying the sequence of a rectangle is used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?	Mathematical Relationships	1	2	3 4
	Summary / Justification / E	vidence		
Indicate the chapter(s), section(s), and/or page(s) reviewed.  Unit 2-6R., 2-1, 2-2, EA 2-1, 2-3, 2-4, EA 2  2-6, EA 2-3, Unit 2 Prac, 3-7, 3-8, 3-9,  EA 3-3, Unit 3 Prac, Unit 3 Stros Rev.,  EA 3-3, Unit 4 Rec 11 sit 4 Stros Rev.	Portions of the domain, cl developed in the instruction	uster, and standa onal materials (if a	rd that are missi any):	ing or not well
Prac., Unit 4 Ref., Unit 4 Stnds Rev.	Overall Rating	<del>\</del> 1	1)	3 4

Reviewed By:	
Title of Instructional Materials:	

### MATHEMATICS: GRADE 7 - EXPRESSIONS AND EQUATIONS - 7.EE

Summary and documentation of how the domain, cluster, and standard are Solve real-life and mathematical problems using numerical and met. Cite examples from the materials. algebraic expressions and equations. 7.EE.4b Important Mathematical Ideas 4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form px + q > rSkills and Procedures or px + q < r, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the 3 problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and Mathematical Relationships describe the solutions. Summary / Justification / Evidence Found Indicate the chapter(s), section(s), and/or page(s) reviewed. Unit 2 Over., Unit 2-6R, 2-5, EA2-3, Unit 2 Prac., Unit 23rds Rev. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Draw, construct, and describe geometrical figures and describe the relationships between them.	Summary and documentation met. Cite examples from the	on of how e materials	the domain, cluste	er, and stand	ard are
7.G.1  Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Important Mathematical Ideas	1	2	3	<del> →</del> 4
	Skills and Procedures	1	2	3	4
	Mathematical Relationships	<b>←</b>   1	2	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.  3-9,3-8, EA 3-3, Unit 3 Prac, Unit 5  3 Ref, Unit 3 Strds, Rev	Summary / Justification / E	uster, and	standard that are als (if any):	missing or n	ot well
	Overall Rating	1	1 2	3	<b>→</b> 4

Title of Instructional Materials:

Important Mathematical Ideas

MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Draw, construct, and describe geometrical figures and describe the relationships between them.

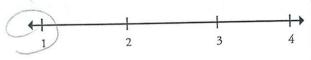
Summary and documentation of how the domain, cluster, and standard are

7.G.2

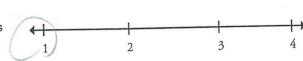
Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

met. Cite examples from the materials.

Skills and Procedures



Mathematical Relationships



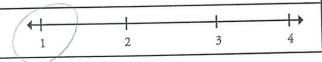
Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.

1-4,2-3,3-1,3-2,3-3,3-4,3-5, EA 3-2, 3-6,3-7, EA 3-3, Unit 3 Prac,5-1

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating



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als:	Materials:	of Instructional	Title
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MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Draw, construct, and describe geometrical figures and describe the relationships between them.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.
7.G.3	Important Mathematical Ideas
Describe the two-dimensional figures that result from slicing three- dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	1 2 3 4
	Skills and Procedures  1 2 3 4
	Mathematical Relationships  1 2 3 4
	Summary / Justification / Evidence
Indicate the chapter(s), section(s), and/or page(s) reviewed.	
4-2, 4-3, EA 4-1, 4-5, EA 4-2, Unit 4 Prac	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating  1 2 3 4

Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

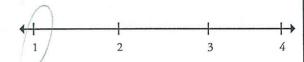
### 7.G.4

Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.

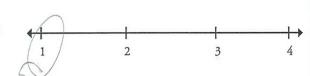
Important Mathematical Ideas



Skills and Procedures



Mathematical Relationships



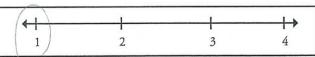
Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Unit 4-GR, 3-2, EA 3-1, Unit 3 Prac., Unit 4-GR, 4-3, 4-4, 4-5, Unit 4 Prage Portions of the domain, cluster, and standard t

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating



Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Summary and documentation of how the domain, cluster, and standard are Solve real-life and mathematical problems involving angle measure, met. Cite examples from the materials. area, surface area, and volume. 7.G.5 Important Mathematical Ideas Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. Skills and Procedures Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Unit 3-GR, 3-1, 3-2, 3-3, EA 3-1, Unit 3 Praci, Unit 3 Ref., Unit 4-GR Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	
Title of Instructional Materials:	

MATHEMATICS: GRADE 7 - GEOMETRY - 7.G

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	Summary and documentation met. Cite examples from the			er, and stan	dard are
7.G.6	Important Mathematical Ideas	<del></del>			<del> -&gt;</del>
Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.		1	2	3	4
	Skills and Procedures	1	$\frac{1}{2}$	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification / E	vidence	:		
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Fours.				
Unit 1 Pras 13-2 EA 3-1,3-5,3-6,3-7, 3-8, EA 3-3, Unit 3 Prac, Unit 4 Over.	Portions of the domain, cludeveloped in the instruction	uster, and onal mater	standard that are ials (if any):	missing or I	not well
Unit 4-GR, 4-1, 4-2, 4-3, EA 4-1, 4-4 4-5, EA 4-2, Unit 4 Pros, Unit 4 Ref.					
Unit 4 Stands Rev., 5-2					
	Overall Rating	1	$-\left(\begin{array}{c} 1\\2\end{array}\right)$	3	4

Title of Instructional Materials:

Use random sampling to draw inferences about a population.	Summary and documentat met. Cite examples from the	ion of how the e materials.	e domain, clus	ter, and stanc	iard are
7.SP.1  Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about	Important Mathematical Ideas		2	3	4
a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Skills and Procedures	<del>( )</del>	2	3	<del>  </del> 4
	Mathematical Relationships		2	3	<del></del>
	Summary / Justification /	Evidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.  3-6,5-4,5-5, EA 5-2, Unit 5 Pracing  Wit 5 Ref.	Portions of the domain, c developed in the instruct	luster, and sta onal material	andard that are s (if any):	e missing or r	not well
	Overall Rating	(+) -	1 2	3	4

Reviewed By:	
Title of Instructional Materials:	

Use random sampling to draw inferences about a population.	Summary and documentation met. Cite examples from the	on of how the e materials.	domain, ciusi	er, and stand	
7.SP.2	Important Mathematical Ideas	<del>(1)</del>			<del></del>
Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or			2	3	4
or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2	3	4
	Summary / Justification /	Evidence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.  5-3, Unit 5 Pracy Unit 5 Styles Kev.	Portions of the domain, c developed in the instruct	luster, and sta ional material	andard that ar s (if any):	e missing or r	not well
	Overall Rating			3	<del></del>

Reviewed By:	
Title of Instructional Materials:	

Draw informal comparative inferences about two populations.	Summary and documentation met. Cite examples from the	n of how to materials	the domain, cluste	er, and stand	ard are
7.SP.3  Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between	Important Mathematical Ideas	1	2	3	4
the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.	Skills and Procedures	1	2	3	4
	Mathematical Relationships	1	2/	3	4
Indicate the chapter(s), section(s), and/or page(s) reviewed.  2-1, 2-2, Unit 5-6R, 5-1, 5-3, Unit  5 Rec, Unit 5 Stros Rev.	Summary / Justification / E	uster, and	standard that are ials (if any):	missing or n	ot well
	Overall Rating	1	1 2	3	4

Reviewed By:	
Title of Instructional Materials:	

Draw informal comparative inferences about two populations.	Summary and documentation met. Cite examples from the	on of how the domain, cluster, and standard are e materials.
7.SP.4  Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a	Important Mathematical Ideas	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.	Skills and Procedures	1 2 3 4
	Mathematical Relationships	1 2 3 4
Indicate the chapter(s), section(s), and/or page(s) reviewed.  2-1, 2-2, Unit 5-6R. 5-1, 5-3, Unit 15  5 Ref., Unit 5 Stras. Rev.	Summary / Justification / E Portions of the domain, cli developed in the instruction	uster, and standard that are missing or not well
	Overall Rating	1 2 3 4

Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - STATISTICS AND PROBABILITY - 7.SP

Summary and documentation of how the domain, cluster, and standard are Investigate chance processes and develop, use, and evaluate met. Cite examples from the materials. probability models. 7.SP.5 Important Mathematical Ideas Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. Skills and Procedures 3 Mathematical Relationships Summary / Justification / Evidence Indicate the chapter(s), section(s), and/or page(s) reviewed. Unit 5-GR, 5-2, 5-4, Unit 5 Prac., Unit 5 Ref., Unit 5 Strds, Rev. Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any): Overall Rating

Reviewed By:	

Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - STATISTICS AND PROBABILITY - 7.SP

Investigate chance processes and develop, use, and evaluate probability models.

7.SP.6

Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

Important Mathematical Ideas



Skills and Procedures



Mathematical Relationships



Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Unit 5-GR, 5-1, 5-2. EA 5-1, 5-4 5-5, EA 5-2, Unit 5 Stros Rev

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating



Reviewed By:	
Title of Instructional Materials:	

Investigate chance processes and develop, use, and evaluate probability models.	Summary and documentation met. Cite examples from the	on of how the domain, cluster, and standard are ematerials.
<ul> <li>7.SP.7a</li> <li>7. Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.</li> </ul>	Important Mathematical Ideas	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
<ul> <li>a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.         For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl     </li> </ul>	Skills and Procedures	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
will be selected.	Mathematical Relationships	1 2 3 4
Indicate the chapter(s), section(s), and/or page(s) reviewed.  Unit 5 Over, 5-4, 5-5, EAS-2, Unit  5 Prace, Unit 5 Refe, Unit 5 Strate, Rev.	Summary / Justification / E  Portions of the domain, cludeveloped in the instruction	uster, and standard that are missing or not well
	Overall Rating	1 2 3 4

Reviewed By:	
Title of Instructional Materials:	

nvestigate chance processes and develop, use, and evaluate probability models.	Summary and documentation met. Cite examples from the	n of how to materials.	ne domain, clusio	er, and stand	
<ul> <li>7.SP.7b</li> <li>7. Develop a probability model and use it to find probabilities of events.</li> <li>Compare probabilities from a model to observed frequencies; if the</li> </ul>	Important Mathematical Ideas	1	1 2	3	4
agreement is not good, explain possible sources of the discrepancy.  b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?	Skills and Procedures		2	3	4
	Mathematical Relationships	1	1 2	3	<del> →</del>
the second second	Summary / Justification / E	Evidence	7		
Unit 5 Over 5-6, EA 5-2, Unit 5 Prac.	Portions of the domain, cl developed in the instruction	uster, and onal materi	standard that are ials (if any):	missing or n	ot well
	Overall Rating	<del></del>	1 2	3	<del></del>

Reviewed By:	
Title of Instructional Materials:	

Investigate chance processes and develop, use, and evaluate probability models.	Summary and documentation met. Cite examples from the	on of how materials	the domain, clust	er, and stand	laru are
7.SP.8a	Important Mathematical Ideas	<del>     </del>	<del>/</del>		<del></del>
<ol><li>Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.</li></ol>		1	2/	3	4
a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	Skills and Procedures		2	3	<del> →</del>
	Mathematical Relationships	1	2	3	<del>  1</del>
Indicate the chapter(s), section(s), and/or page(s) reviewed.	Summary / Justification / E	Evidence			
Unit 5 Over., 5-5, EA 5-2, Unit 5 Prac Unit 5 Ref, Unit 5 Stras Rev	Portions of the domain, cludeveloped in the instruction	uster, and onal mater	standard that are ials (if any):	missing or r	not well
	Overall Rating	<del></del>	1 2	3	<del></del>

Title of Instructional Materials:

### MATHEMATICS: GRADE 7 - STATISTICS AND PROBABILITY - 7.SP

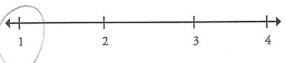
Investigate chance processes and develop, use, and evaluate probability models.

Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.

### 7.SP.8b

- 8. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.
  - b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.

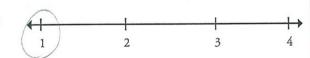
Important Mathematical Ideas



Skills and Procedures



Mathematical Relationships



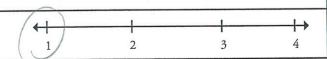
Summary / Justification / Evidence

Indicate the chapter(s), section(s), and/or page(s) reviewed.

Unit 5 Over, 5-5, EA 5-2, Unit 5 Prac., Unit 5 Ref., Unit 5 Stros Rev

Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):

Overall Rating



Reviewed By:	
Title of Instructional Materials:	

nvestigate chance processes and develop, use, and evaluate probability models.	Summary and documentation met. Cite examples from the m	of how the d	iomain, ciust	er, and standa	
. Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	Important Mathematical Ideas	1)	2	3	4
c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?	Skills and Procedures		2	3	4
	Mathematical Relationships		2	3	4
	Summary / Justification / Evi	idence			
Indicate the chapter(s), section(s), and/or page(s) reviewed.	2.1		7.0		
Unit 5 Over., 5-5, EA 5-2, Unit 5 Prac., Unit 5 Ref., Unit 5 Strds Rev	Portions of the domain, clus developed in the instruction	ster, and sta nal materials	ndard that are (if any):	missing or n	ot well
	Overall Rating		2	3	1 > 4

Spring Board

ROUNDTABLE 20 10

Grade (M.S.2)

Callege Board

### Instructional Materials Analysis and Selection

Phase 3: Assessing Content Alignment to the Common Core State Standards for Mathematics





Frontmalle

#### Instructional Materials Analysis and Selection

Assessing Content Alignment to the Common Core State Standards for Mathematics

This tord provides educators with a intractured way to make informed discussions when selecting mathematics instructional materials. In perticular, it see halp you become more knowledgeable about the Common Core State Standards for Mathematics to you can select instructional materials sligned with these standards.

This recurren som also be used with the Duan Coston's larger 4-phase hoursectoned bleavish Analysis and Solection toolest: Plane 1: Studying the Shandards, Plane 2: Maryoning the Field of Interactional bleavists, Plane 3: Assurange Subject-Green Costons Alignment, and Plane 4: Assurance for second chigament of interactional bleavists. The protection consumer you had to a place 3 local test has been customated for secondary the slightness of structure and the subject of the subject

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### Instructional Materials Analysis and Selection

Phase 3:

Assessing Content Alignment to the Common Core State Standards for Mathematics



A project of
The Indiana Education Roundtable, The Indiana Department of Education,
and
The Charles A. Dana Center at The University of Texas at Austin

2010-2011

Frontmatte

### About the development of this resource

This tood, Juanuciassed Materials Analysis and Selection: Assessing Content Alignment to the Content Core State Standards for Mathematics, draws on the Data Center's nearly 20 years of experience to strong-thening administration and has been used assessively in Texas and, increasingly, other states, to help local excluding states of experience in nearly 20 years of experience an attendance with their states. Development and production of the Instructional Materials Analysis scalent was supported by the Charles A. Dane Center.

This securicy consists of a set of 15 individual grade-level I course documents that spec kindergarten through the third year of high achoof mathematics. There is a document for mach grade from kindergarten through 8, and six documents for high school mathematics (our each for the three courses in the trialisonals high school graders I, considered, Algebra II, and care each for this three courses in the integrated high school pathway blathematics I, Mathematics II, and Mathematics III, and I have required from the course of various states and other entries, the Denne Canter has populated that heart-school discovers of Mathematics III, and I have required from the Common Care Value Mandelfrom for the Algebra of Mathematics III and described in the Common Care Value Mandelfrom for the Mathematics for the Polymon described section gives the analysis and section for the Polymon for the Common Care Value Mandelfrom for the Mathematics for the Polymon described section gives the school general section of the Common Care Value Mandelfrom for the Polymon for the Mathematics III and I have considered that the Common Care Value Mandelfrom for the Polymon for the Mathematics III and I have considered that the Mathematics I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics III and I have been considered to the Mathematics I ha

Note that the copyright of the Common Care Siese Standards for Mathematics is hald by the Nesional Governors Association Center for Best Practices and the Council of Chief State School Offices (collectively, NGA CanserCCSSO). This use of the CCSS for Mathematics is done under the CCSS Terms of Use, would be the two constantations of partners—of the Council of Chief States of the Council of Chief States of Use the Council of Chief States of Use the Council of Chief States of Use the Council of Chief States States of Use the Council of Chief States States States of the Council of Chief States States States of Mathematics as well as the CCSS for Mathematics, Appendix A: De againg high school mathematics courses based on the Council on the Council of the Council of

#### October 2010 misses

We undoone your comments and suggestions for improvements—plane send to dean-trakep@nillets.utexas.edu or the address in the copyright section above.

### About the Charles A. Dana Center at The University of Texas at Austin

The Dawn Center works to mire student achievement in K.—16 mathematics and spinners, especially for historically susfernessed populations. We do so by purelying direct service to exchaol describe and instintation of higher education; to local, state, and national education loaders; and to appearing, excepting education; and continued an

The Center was formuled in 1993 at The University of Yesses at Assale. We easy out our week by supporting high attendants and building systems especify; solidablessing with key sales and maintain all cryanutations to address emerging invest, essening and solivaring professional supports for evidence of exhauston and education besidence, and secting and publishing education resources, including student supports. Our staff of more them 60 has worked with dozens of achical systems as mandy 30 distes and with 50 percent of Texas's more them 1,000 subsoil districts. We see consumited to managing that the accident of where a child attends school above not limit the academic operaturation to our our near new.

For more information about our programs and resources, see our homepage at www.midanacemier.org. To access our resources (many of them five), and our products index at www.midanacemier.acgiyareducts. And to learn more about our professional development—and sign up outline—go to www.midanacemier.org/pdf.

\* For the high school course sequences, we relied on the Common Core Stee Standards Methomatics Appendix A: Designing High School Methomatics Courses Based on the Common Core Steen Standards, developed for the CCSS instatute by Achieve, Inc., which convened and managed the Achieve Pathweyt Core.

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Documenting Alignment to the CCSS for Mathematics: Standards for Mathematical Practice

Documenting Alignment to the CCSS for Mathematics: Standards for Mathematical Consent .....

#### Acknowledgments

Union otherwise noted all staff listed has one affiliated with the David Contra

Project director

Our th

Laurie Gerland, director of program and product development Sam Zigmeni, against advisor We gestablily acknowledge the more than 100 school districts said thousands of educators who have informed the development of these

Developers and feolitheters Editor

Pate bickeelf, amor program excellenter for inducting Laurie Gerland, director of program and product development Tom his Vey, professional development tems land fane Zistonii, nester advise. Editorial and production stall

Cara Hoptom, proofceder
Racket Jestim, committing editor
Tom Me Vey, professional development tenns le
and point production manager
Phil Swarm, secon designer

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#### Introduction

- Phase 1: Studying the Standards
- Phase 2: Narrowing the Field of Instructional Materials
- Phase 3: Assessing Mathematical Content Alignment

The purpose of Phase 3: Assessing Mathematical Contest Alignment is to determine the degree to which the materials are aligned to the standards (contest and processor). In Phase 3, participants conduct as in-depth review of the 2-3 instructional materials actented in Phase 2. The Phase 3 process requires reduction committee members to use set critical in order to determine a rating for each sample, to one examples to justify their scores for each sample, and to document standards that are missing or set well-developed in the instructional materials committed.

#### *Implementation*

As a whole group, selection committee members should practice applying the Phase 3 retric. The purpose of the whole group practice is to propose inter-sales acknowled and calchesian.

In Phase 3 it is not important to analyze every page, nexton, or chapter of a someone. It is important to identify an area, topic, or hig idea for the deep content analysis of Phase 3 (e.g. development of equivalent fractions, addition of whole sembers, development of proportionality...). The identified area, topic, or by idea will be most for all the metractional motories considered in Phase 3. The area, topic, or big idea can be identified through the use of stadent achievement data, carriculum priorities-challenges, or ideas that typically make up a genter portion of instruction is particular grade levels converse. It most concern Phase 3 will delatify the one promotes that to be takened.

#### Sico by Sico Instructions

- Use your current adoption to practice using the Phase 3 rathric. Select one hig idea to focus your analysis (are note above for selecting the area, topic, or hig idea).
- Independently, committee members me their current resource, the identified hig idea (and associated pages in that accounce), and the Phase 3 rates: to score and cheament the extent to which the material (content and processes) along to the standards.
- In small groups, committee members where their accurage and justifications. Small groups come to consensus on how the current successes would accret on this big idea.
- 4. Each small group shares with the large group their score. Repeat the consumers building to generate a large group acore on this big idea.
- Clacify any mirrurdentandings about how to apply the rabric before committee members begin to use Phase 3 rabric on the selected
  materials.

Table of contents

Scoring Rubric and Documentation Forms.

- 6 Based on the user of the selection consulting, determine the number of areas, topics, or big ideas to be examined for each goods course, if the group size is large, more areas, topics, big ideas can be examined within each grade level course.
- 7. Make stee committee members have multiple copies of the Plane 3 rubric.
- 8. Committee manufacts apply the Phase 3 relatio for each of the materials.
- Establish a time line for groups to complete and submit Phase 3 documentation.
- Establish a data collection and analysis process to attain a rating for each resource.

#### Materials and Supplies

- Place 3: Assessing Mathematical Content Alignment black line master multiple copies per person
- Currently used instructional resource
- The 2 to 4 instructional gasterials aniested in Phone 2

#### Please 46

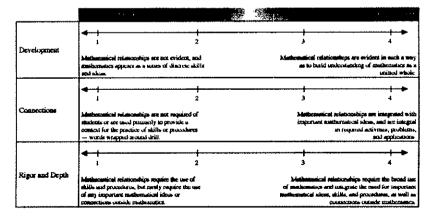
Assessing Vertical Alignment of Instructional Materials

### Important Mathematical Ideas: Understanding the scoring

	r t		The same	
	1	2	3	4
Development	Important mathematical ideas are obtained to scriply or are nessing, approached principly from a skill level, or provided for students outside any context.		contractually contract of real-wark	at mathematical alons are evident, developed, and emerge within the d examples, interesting problems, mature, or stacked investigations
	1	<del> </del>	3	4
Connections	Important mathematical ideas are developed independently of each other (i.e., they are discover, undependent ideas).		expending : mathematic	humatical ideas are developed by and commoning to other important tal ishow in such a way as to build f mathematics as a unshed whole.
·	1	1	3	4
Rigar and Depth	Important authorismical ideas are applied in source problems or in using formulated procedures, and are extended in separate? optional problems.		ezionini in sc contest, re.	ethemetost ideas are applied and red situatosis or embedded to the parting the extension of important mathematical ideas and the use of usuluple approaches.

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### Mathematical Relationships: Understanding the scoring



### Skills and Procedures: Understanding the scoring

	get execusive	Andread	descripes ped
Development	Skills and procedures are the primary focus, are developed without conceptual understanding, and are locally connected to unportant madematical sides — important madematical sides — important mathematical sides are admin	named a report of the second o	dures are integrated with empurisms to a mind one presunted as important to a my many important and make alambas inspected at the mathematical at
Connections	this and procedures are treated as discrete skills and procedures are treated as discrete skills and procedures are treated as discrete	 with	4  4  4  4  4  1
Rigor and Depth	Skulls and procedures are practiced without conceptual trade-transling outside any contest, do not require the trace of impartant methorsates is those and are premarily practiced on rote currents and still.	the applicat	Bille and procedure are craical to on and understanding of important material alone, and are conducted to problem attachous

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	Reviewed By:	
nenting Alignment to the	Title of Instructional Materials:	

### Docum Standards for Mathematical Practice

1. Make sense of problems and persevere in solving t	them.	
givem, constraints, relationships, and goals. They stake simply jamping into a solution attempt. They consider an guidi jamping into a solution attempt. They consider an explain insight must its solution. They monitor and evaluate the problem, transform algebraic exposurous or change t perficient students case explain correspondences between relationships, graph data, and search for negotiarity or tensities a publicus. Multiconstically proficient students class	themselves the meaning of a problem and looking for entry points to its solution. It conjuctures about the form and meaning of the solution and plant a adultion pathwa indepense problems, and try special cases and sampler forms of the original problem their progress and change course if accessing. Older students might, depending on the viowing window on their graphing calculator to get the information they used: I countrions, verbal descriptions, tables, and graphs or draw diagrams of important for its countries, we problems and an experience objects or pictures to help conside their mosters to problems using a delicerat method, and they continually and the of others to only up coulders problems and about 10 carriers to help countries of others are not problems and about 10 carriers.	o nather them to order to the context of thathermatically matures and optimize and uncives, "Done
Different app Aprior knowledge	Franches USAN to expla Encourages students to du to darley, step-by-step, E ete-to source fife."	awon
Pg 93 - 108 VB W	O-12	

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The Cherles A. Date Center

Title of Instructional Materials:	Title of instructional Materials:
Standards for Mathematical Practice	Standards for Mathematical Practice
2. Reason abstractly and quantitatively.	3. Construct viable arguments and critique the reasoning of others.
Make consticutly proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to best on problems say of any quantitative relationships the ability to decenters solve—to abstract a given saturation and expenses it is substitutly and constitution and expenses it is substitutly and constitution and expenses it is substituted to constitution, to prove a second distring the manipulation process in order to probe into the referents for the synabula survival. Quantitative sensesing estates babte of creating a violent representation of the problem of hand, considering the units involved, attending to the meneing of quantities, not just how to compute them, and knowing and flexibly using different properties of operations and objects.  The procedure properties of operations and objects by dura bapting provides them, and the properties of operations and objects.  The procedure properties of operations and objects by dura bapting provides them, and the properties of operations and objects.  The procedure properties of operations and objects by dura bapting provides to the problem of the procedure properties of operations and objects by dura bapting provides to the problem of the procedure properties of operations and objects.  The procedure provides the problem of the procedure properties of operations and objects.  The procedure procedure properties of operations and objects by dura bapting provides to constitute the procedure procedure provides and them, and the procedure provides to constitute the procedure p	Mathematically proficient students undermand and nec stated assumptions, definitions, and previously established sensits in constructing promounts. They make compostness and build a logical progression of statements to explore the truth of their conjectures. They are able to analy an attention by becaling them time cannot an interest and one constructing them time cannot an interest and one constructions of others. They makes the content interest and the state are account the content from which the data arouse. Anthermatically proficients students are also able to compare the effectiveness of two plassible arguments, distinguish correct logic or reasoning from that which is then and, and—if there is a flaw in an argument — explain what it is, then odd, and—if there is a flaw in an argument—explain what it is, the students learn to determine obstances to cannot be correct, even though they are may peneralized or made formal watel later grades. Later, students form to determine obstances to cannot be some and be correct, even though they are may peneralized or made formal watel later grades. Later, students forms to determine obstances to cannot be some an argument applies. Students at all practice continues to each other, decide whether they make some, and not work of peneralized to made formal watel later grades. Later, students forms to determine obstances to cannot or the students forms to other, decide whether they make some, and not work of peneralized to made formal watel later grades. Later, attacks are also as the content of the arguments.  The students form to determine obstances to cannot over the arguments.  The students form to determine the content and the arguments are the arguments.  The students form to determine the arguments are the students and the arguments are the arguments.  The students form to determine the arguments are the students are all practices continued to read the arguments of the arguments.  The students form to determine the arguments are the arguments are the arguments are the
Police of the selection of partition of the selection of	Parties of the chapter is, and refer to a page of an in-distributed as a schooling or not well developed in the instructional materials (if any):  Security (Justification / Britishow)  Overall Resing  4 1 2 5 5 4
ne Claritis A. Dana Classer 7	The Charles A Dieus Center 8
Take of instructional Materials:  Cocumenting Alignment to the tandards for Mathematical Practice  4. Model with mathematics.	Reviewed By:  Tide of testructional Materials:  Documenting Alignment to the  Standards for Mathematical Practice  S. Use appropriate tools strategically.
Mathematically proficient statements can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, there night be an simple as writing an addition equation to describe a saturation. In cricible grades, a statement alight apply proportional manners to plan a nchool event or analysis a purificant in the community. By high school, a statement night may proved you have a charge problems or some a function to describe how one quantity of internal depends on another Mathematically proficient statements provided in the control of internal depends and approximation and suspections to unseptify a complicated attention, reducing that there may need available surface and exceptions and approximations to unseptify a complicated attention, reducing that there may need available in the first transcribed surfaces assumptions and approximations and supportion attention, reducing that there may need available in the first substitute processes are provided as a dispersion, two-may tables, gramps, flow-therst and formotion. They can unally or there relationships mathematically to draw conclusions. They systemly instructed their mathematical about in the context of the situation and anothers are reduced in a formotion of the mathematical about in the context of the situation and actions of the statement and statement and formotion. They can unally or there relationships mathematically to draw conclusions. They systemly their mathematical about their mathematical actions in the context of the situation and anothers. They can unall developed the first and the context of the situation and the context of the situatio	Machacustically proficient students consider the available tools when not ing a machecustical problem. These tools wight include peacif and paper, concrete marker, a protection, a calculation, a specialistic, a specialistic, a specialistic, a specialistic, a specialistic, a specialistic, a specialistic configuration of the students are sufficiently familiar with tools appropriate for their grade or course to make assaul discusses about when each of these tools might be helpful, mongraring but his images to be grained and their distinistions. For example, methods thigh school administer significant distinistions and solutions participations processed using a graphing fundability of recognizing the his images to be included. They detect purpose error by strainguistic the results of varying management consecutives. When making mathematical models, they know that exchandings can enable them to visualize the results of varying management exceptions, explore consequences, and campione productions with data. Sentematically protections students are various grade levels are able to identify role said customic exceptions, explore consequences, such as departed consecut located on a website, and use them to puse or active problems. They are able to use inchnological students to explore and deepen their fundability of consequences, and the students of the students
r Charlies A. Dana Cross	The Charles A. Dans Confer 10

Title of Instructional Materials:	Title of Instructional Materials:
ocumenting Alignment to the tandards for Mathematical Practice	Documenting Alignment to the Standards for Mathematical Practice
6. Attend to pracision.	7. Look for and make use of structure.
Mathematically proficient students by to communicate precisely to other. They try to not ecter definitions in discussion with others and in their own recovering. They state the manning of the symbols they choose, including using the equal size consistently and appropriately. They are careful about specially against of minimum, and labeling acus to clearly the correspondence with quantities in a proteint. They calculate accurately, and of these consistents are not with a degree of precision appropriate for the problem counter. In the elementary grades, students give carefully formulated explainations to each other. By the time they reach high school they have beared to examine claters and reader explain see of definitions.  The fact are foundly or carefully according to the formulation of each other. By the time they reach high school they have beared to examine claters and reader exploit see of definitions.  The fact are foundly formulated to the state of the state	Mathematically proficient students lock closely to discere a pattern or structure. Young students, for example, neight active that three need never more in the none around an server and three crose, or they can just a collection of shopen according to how many solds the shapes have. Later, students will see 7 x 8 equals the well remembered 7 x 5 + 7 x 3, in preparation for learning about the thierbother property. In the expression of + 90 x + 14, clother students can see the 14 as 2 x 7 and the 9 as 2 + 7. They proceed the agentificance of in a existing line for advising problems. They also can step both for an over low and shift perspective. They can see complicated things, such as some adjuthosic expressions, as surgice objects or as the being companied of several objects. For exhapte, they can see the supplementation of the student of several objects for a charge of the student of the student of several objects for a student of several objects for a student of the student of several objects for a student object for a student object for a student of several objects for a student object for a
Student interests as motivators.	Pg 8 + - 92
Unt 3	Summary/Jacobicasian/Erlamon  Overall Rating
: Charles A. Buor Conser II	The Charles A Detail Confer 12
Reviewed By:  Title of Instructional Materials:  and ards for Mathematical Practice	Reviewed By:  Title of Instructional Materials:  MATHEMATICS: GRADE 7 - RATIOS AND PROPORTIONAL RELATIONSHIPS 7.RP
Look for and express regularity in repeated reasoning.	Analyze proportional relationships and use them to solve real-world and Summary and documentation of how the domain, cluster, and standard are metamatical problems.  See examples from the materials.
Mathematically proficeent students artice if calculations are superior, and book both for general methods and for shortcuts. Lipper observes students anyth stude when the dividing 25 by 11 that they are repeating the same calculations over and over again, and conscioud they have a superior got students proposed by clock whether points are on the first through (1, 2) with slope 3, miskles tacked students neight abstract the equation (v - 2)(x - 1) = 3. Noticing the negativity in the way terms cancel when expending (x - 1)(x + 1), (r - 1)(x^2 + x + 1), and (x - 1)x^2 + x + 2 + x + 1) might lead them to the general formula for the same of a general methods to each a problem, mathematically producent students maintain oversught of the process, while attending to the details. They continuelly evaluate the remonableness of their satermediate results.  After the detail of the process, while attending to the details. They continuelly evaluate the remonableness of their satermediate results.  After the detail of the process, while attending to the details. They continuelly evaluate the remonableness of their satermediate results.  After the details of the process of the same of a general method of the process of their satermediate results.  After the details of the process of their satermediate results are satermediated by the details. They continuelly a satermediate of the satermediate for the same satermediate of the satermediate for the sat	Compute unit rates associated with ratios of facilions, including ratios of largiths, was and other quantities chassured in like or deflerent units. For as empts, if a person walks 1/2 rates in each 1/4 hour, compute the unit rate as the complex faction "I", makes per hour, equivalently 2 rates per hour.  Should Shuthan in this postantial a state of the complex faction of the chapter of the ch
Overall Baring  + 1	Overall Rating

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Reviewed By:

Reviewed By:

The Charles A Dates Center

TI NATHEMATICS: GRADE 7 — RATIOS AND PROPORTIONAL RELATI	ide of Instructional Materials:	MATHEMATICS: GRADE 7 RATIOS AND PROPORTIONAL RELAT	ide of Instructional Materials: IONSHIPS 7,RP
nelyze proportional relationships and use them to solve real-world and	Businessy and documentation of how the domain, cluster, and standard are used. One examples from the materials.	Analyse proportional relationships and use them to solve reel-world and methematical problems.	Summary and documentation of how the destein, cluster, and standard ones. One examples from the materials.
JRP.2a  Recognites and represent propertional relationships between quantities.  a. Decide whether two quantities are in a proportional relationship, a g., by teating for equivalent ratios in a table or graphing on a coordinal plane and observing whether the graph is a straight line through the origin.	State and Procedures  1 2 3 4  State and Procedures 1 2 3 4  Mathematical Relationships 1 2 3 4.  Summary / Justification / Evidence	7.8.25  2. Recognize and represent proportional relationships between quantities. b. identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verted descriptions of proportional relationships.  Shulm Shulm Shulm Am Yan a part, which shull shu	Important Methematical Ideas  1 2 3  Skets and Procedures 1 2 3  Methematical Relationships 1 2 3  Summary / Justification / Evidence
3, 6, 3, 4	Portions of the domein, charter, and standard that are missing or not well developed in the instructional materials (if any):  Overall Railing	Indicate the chapter(a), section(s), and/or page(s) serieused.	Portions of the doctain, classer, and standard that are missing or not weldereloped in the instructional materials (if any):  Overall Rating
	eviewed By: the of Instructional Materials:	Ti	eviewed By: tle of Instructional Materials:
ATHEMATICS: GRADE 7 RATIOS AND PROPORTIONAL RELATIonal relationships and use them to solve mail-world and		MATHEMATICS: GRADE 7 ~ RATIOS AND PROPORTIONAL RELATI	Surmary and documentation of how the domain, chaster, and standard a
AP 2c.  Reacognize and represent proportional relationships between quantities.  C. Represent proportional relationships by equations. For exemple, if total over its proportional relationship between the local cost and the number of items purchased at a constant price p, the relationship between the local cost and the number of items can be expressed as t = pn.  The AFA BY REPRESENTATION AND AFA BY REPRES	med. Citie axamples from the meterials.  Important Mathematical Ideas  1 2 5  Skills and Procedures	TRPA  7.RPA  2. Recognize and represent proportional relationships between quartities.  d. Explain what a point (x, y) on the graph of a preportional relationship means in terms of the situation, with special attention to the points.  (0,0) and (1,1) where r is the unit rate.  Symply Symphical Ryman Factor  3. usnd but this is lacking for this point of the points.  Symphical Ryman Factor  3. usnd but this is lacking for this way.	State and Procedures  State and Procedures  1 2 3  State and Procedures 1 2 3  Shartnersecol Relationships 1 2 3
ndicute the chapter(s), section(s), section page(s) reviewed.  3.6-3.6	Portions of the domain, chartet, and standard that are missing or not well developed in the instructional materials (if any):  Overall Rating	andicals the chapter(a), section(a), and/or page(a) reviewed.	Portions of the domain, charter, and standard that are missing or not well developed in the instructional materials (if any):  Should made man apportunity for plut from a formula formula formula formula formula formula for plut from a formula for

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nd extend provious understandings of operations with fraction subtract, multiply, and slivide rational numbers.	Summery and documentation of how the domain, chester, and standard are met. Cite examples from the materials.	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Summary and documentation of how the domain, cluster, and standard met. Cite examples from the materials.
	important Methamatical Ideas 44	7.89.2a	Important Mathematical Ideas
tend previous understandings of addition and subtraction t ract retional sumbers; represent addition and subtraction o		<ol> <li>Apply and extend previous understandings of stufficienties and of fractions to stufficier and divide rational numbers.</li> </ol>	
ical number line diegram.		a. Understand that smillplication is extended from fractions to reflored	
stations as strategies to add and subtract	Gidlis and Procedures	numbers by requiring that operations continue to sately the properties of operations, particularly the distributive property, leading	Stalls and Procedures 4-1
1 -7/	1 2 3	to products such as (-1)(-1) = 1 and the rules for multiplying eigned numbers, interpret products of resonal numbers by describing real-	1 2 3)
mostly in H		world contexts.	
. / ****	Methemetical Relationships 4.1	Horain tricks is an of	Mathematical Relationships 41
+ 50 much on Q.	1 2 (1)	1 27 17 100 15 14	' '/'
1)		Anot some 1 a	Summery / Justification / Evidence
through a large of	and the distance of the land o	arm, or which on the	
imije), andfor page(s) sevirused.	one disgram (pg (43) is used ashard of	Indicate the chapter(s), section(s), and/or page(s) swipwed.	
777	used more office.		Portions of the domain, chister, and standard that are missing or not well
R	Portions of the domeio, cluster, and standard that are missing or not well developed in the instructional materials (if any):	4	developed in the instructional materials (if any):
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	23	The Charles A. Dana Censor	
	Reviewed By: Title of Instructional Materials:	,	toviewed By:
B: GRADE 7 — THE NUMBER SYSTEM — 7.MS	Title of Instructional Materials:	MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM 7.NS	<u> </u>
ADE 7 - THE NUMBER SYSTEM - 7.MG	Title of Instructional Materials:	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	ttle of Instructional Materials:
7 — THE NUMBER SYSTEM — 7.MG understandings of operations with fraction aid divide rational numbers.	Title of Instructional Materials:  a Summary and documentation of how the domain, classer, and standard are seet. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.MS.2c	itle of Instructional Materials:  Surrenery and documentation of how the domain, cluster, and standard an
r — THE NUMBER SYSTEM — 7.NS  Understandings of operations with fraction ad divide rational numbers.  In understandings of multiplication and divides	Title of Instructional Materials:  a Summary and documentation of how the domain, classer, and standard are seet. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	title of Instructional Materials:  Surmery and documentation of bow the domain, cluster, and standard an mat. Cite examples from the malacials.
E 7 — THE MAMBER BYSTEM — 7.MS us understandings of operations with fraction , and divide rational numbers. ious understandings of multiplication and division topy and divide rational numbers. ingus cas to divided, provided fast the divisor ingus cas to divided, provided fast the divisor	Title of Instructional Materials:    Summer   and documentation of how the documen, classer, and standard are asst. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	title of Instructional Materials:  Surmery and documentation of bow the domain, cluster, and standard an mat. Cite examples from the malacials.
7 — THE NUMBER SYSTEM — 7.MG is understandings of operations with fraction and divide rational numbers.  The system of the syste	Title of Instructional Materials:    Summer   and documentation of how the documen, classer, and standard are asst. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.166.2c  2. Apply and extend previous understandings of multiplication and division and of tections to multiply and divide rational numbers.	title of Instructional Materials:  Surmery and documentation of bow the domain, cluster, and standard an mat. Cite examples from the malacials.
E 7 — THE NUMBER SYSTEM — 7.MS  us understandings of operations with fraction, and difride rational numbers.  tous understandings of multiplication and division topy and divide rational numbers.  Images can be divided, provided that the divisor ery quotient of stappers (with non-zero divisor).  If p and q are integers, then  "	Title of Instructional Materials:    Summary and documentation of how the domain, classer, and standard are seek. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	Surrenery and documentation of how the domain, cluster, and standard an anat. Give examples from the meterials.  Important Mathematical ideas 4 1 1 2 3 4
the 7 — THE NUMBER BYSTEM — 7.MS  us understandings of operations with fraction y, and divide rational numbers,  down understandings of multiplication and division lioly and devide rational numbers.  https://down.org/devided/provided that the divisor rary quotient of stagers (with non-zero devisor) or. If p and q are integers, then y-out interpret quotient of rational numbers by	Title of Instructional Materials:    Summary and documentation of how the doctmin, classer, and standard are east. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	State and Procedures  State and Procedures  1 2 3 4
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THE NUMBER SYSTEM — 7.MS ferstandings of operations with fraction divide rational numbers. Inderstandings of multiplication and division and divide rational numbers. I can be divided, provided that the divisor obtant of stagers (with non-zeo divisor) and g are integers, then interpret quotents or rational numbers by	Title of Instructional Materials:    Summary and documentation of how the doctmin, classes, and standard are east. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	State and Procedures  State and Procedures  1 2 3 4
THE NUMBER SYSTEM — 7.MS ferstandings of operations with fraction divide rational numbers. Inderstandings of multiplication and division and device rational numbers. Is can be divided, provided that the divisor soldent of stagers (with non-zero divisor) and q are integers, then interpret quotenes of rational numbers by	Title of Instructional Materials:    Supremery and documentation of how the documen, classics, and standard are east. Cite examples from the meterials.   Important Methematical Ideas	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	State and Procedures  State and Procedures  1 2 3 4
r—THE NUMBER SYSTEM — 7.NS  understandings of operations with fraction and diride rational numbers.  substantianistics of multiplication and division y and deade rational numbers.  pass cans be divided, provided that the divisor quotient of stagers (with non-zero divesor) if p and q are integers, then \[ \] Interpret quotient of rational numbers by	Title of Instructional Materials:    Summary and documentation of how the doctmin, classes, and standard are east. Cite examples from the meterials.	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	Surrenery and documentation of how the domain, cluster, and standard an met. Cite examples from the malacials.  Important Methematical ideas  1 2 3 4  State and Procedures 1 2 5 4
— THE NUMBER SYSTEM — 7.MS  Interstandings of operations with fraction of divide rational numbers.  Interstandings of multiplication and division and divide rational numbers.  Interstandings of multiplication and division and divide rational numbers.  In an operation of rational numbers by contexts.	Title of Instructional Materials:    Supremery and documentation of how the documen, classics, and standard are east. Cite examples from the meterials.   Important Methematical Ideas	MATHEMATICS: GRADE 7 – THE NUMBER SYSTEM 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.  7.168.26  2. Apply and extend previous understandings of sudiplication and division and of tections to multiply and divide rational numbers.  c. Apply properties of operations as strategies to multiply and divide.	Surrenery and documentation of how the domain, cluster, and standard an met. Cite examples from the malacials.  Important Methematical ideas  1 2 3 4  State and Procedures 1 2 5 4
7—THE NUMBER SYSTEM — 7.NS understandings of operations with fraction and divide rational numbers.  In understandings of multiplication and divides by and device rational numbers, pass ones be divided, provided that the divisor y quotient of stagers (with non-zero devect) if p and gare integers, then gl. Interpret quotients of rational numbers by contexts.	Title of Instructional Materials:    Summary and documentation of how the domain, cluster, and standard are and. Cise examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and division and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Summery and documentation of how the domain, cluster, and standard and stat. Cite examples from the metantals.  Important Methemetical ideas    1
DE 7 — THE NUMBER SYSTEM — 7.MS  AND understandings of operations with fraction y, and divide rational numbers.  And divide rational numbers.  And divide rational numbers.  Anagese can be divided, provided that the divisor  very quotient of integers (with non-zero divisor)  ext. if p and q are integers, then  of contents of provided numbers by  orld contents.	Title of Instructional Materials:    Supremery and documentation of how the documen, classics, and standard are east. Cite examples from the meterials.   Important Methematical Ideas	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and division and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Surrenery and documentation of how the domain, cluster, and standard an met. Cite examples from the malacials.  Important Methematical ideas  1 2 3 4  State and Procedures 1 2 5 4
	Title of Enstructional Materials:    Summary and documentation of how the documen, cheeler, and standard are seek. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and division and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Surrenery and documentation of how the domain, cluster, and standard an met. Give examples from the metaclais.  Important Mathematical ideas  1 2 3 4  Stulis and Procedures  1 2 3 4  Mathematical Relationships  1 2 3 4   Burrenery / Justification / Evidence
ADE 7 — THE NUMBER SYSTEM — 7.MS  rices understandings of operations with fraction ply, and divide rational sussbars.  revices understandings of multiplication and divide ratioly and dwide rational numbers.  It hages one be dwided, provided that the divisor levery quotient of stagers (with non-zero divect) richer. If p and q are integers, then p/-q3, integers, then sylvaping or the providence by world contents.	Title of Enstructional Materials:    Summary and documentation of how the documen, cheeler, and standard are seek. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and division and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Surrenery and documentation of how the domain, cluster, and standard an met. Give examples from the metaclais.  Important Mathematical ideas  1 2 3 4  Stulis and Procedures  1 2 3 4  Mathematical Relationships  1 2 3 4   Burrenery / Justification / Evidence
E 7 — THE MANDER SYSTEM — 7.MS  understandings of operations with fraction is and diride retionel numbers.  four understandings of multiplication and division soly and divide retional numbers.  sagains cans be divided, provided that the divisor rery quotient of integers (with non-zero divisor) or. If p and q are integers, then (-o), integerst quotients of rational numbers by rid contents.	Title of Enstructional Materials:    Summary and documentation of how the documen, charles, and standard are seat. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and division and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Surrenery and documentation of how the domain, cluster, and standard or stat. Cite examples from the metaclais.  Important Methematical Ideas  1 2 3 4  Skale and Procedures  1 2 5 4  Mathematical Relationships  1 2 3 4  Determinery / Justification / Evidence
E 7 — THE NUMBER SYSTEM — 7.MS  Is understandings of operations with fraction and diride rational numbers.  Ious understandings of multiplication and division topic and divide rational numbers.  Ingust can be divided, provided that the divisor ray quotient of stagers (with non-zero diveror)  I. If p and q are integers, then (-q.) Interpret quotients of rational numbers by itd contents.  And the stage of the stage of the stage of the contents.  And the stage of the stage of the stage of the contents.	Title of Enstructional Materials:    Summary and documentation of how the documen, cheeler, and standard are seek. Cite examples from the meterials.	MATHEMATICS: GRADE 7 — THE NUMBER SYSTEM — 7.NS  Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide retional numbers.  7.NS.2c  2. Apply and extend previous understandings of sudilplication and dividended and of fractions to multiply and divide retional numbers.  c. Apply properties of operations as strategies to multiply and divide rational numbers.	Surrenery and documentation of how the domain, cluster, and standard an met. Give examples from the metaclais.  Important Mathematical ideas  1 2 3 4  Stulis and Procedures  1 2 3 4  Mathematical Relationships  1 2 3 4   Burrenery / Justification / Evidence

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Analyze proportional relationships and use them to solve real-world and mathematical problems.	d Summery and documentation of how the domain, cluster, and standar met. Cite examples from the meterials.				
7.RP.3 Use proportional relationships to solve multiship ratio and percent problems. Examples, simple interest, Les, adeques and markdowns, gratisties and convinsains. See, percent increase and decrease, percent array.	fraportant Mathematical ide	en +	1	1	+
Boad disc. of % D but a lacking in commetion to proper tions.	Skills and Procedures	<del>+  </del>	1 2	,	<del></del>
proportions.	Mathematical Relationships	<del>                                      </del>	2	<del>-(;)</del>	4
	Summary / Justification	/ Evidence			
indicate the chapter(s), excline(s), and/or page(s) reviewed.	Portions of the detanin, developed in the instruct			e missing or n	ot wall
	Overall Rating	++	 		<del></del>

### MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM - 7.MS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Summary and documentalionet. Cite examples from the		e domain, ci	uster, and stand	land are
7.88.16	Important Mathematical Ideas	4.1		( , )	
<ol> <li>Apply and extend previous understandings of addition and subtraction to add and subtract reasonal numbers; represent addition and subtraction on a horizontal or vertical number line diagram.</li> </ol>		1	2	X	1
b. Understand ρ + q set the number located a distance (q) from ρ, in the positive or negative direction depending on whether q is positive or negative. Show that a number and as opposets have a sum of 0 (are additive inverses), interpret sums of rational numbers by describing net-world contexts.	Skills and Procedures	+	1	<del>-(i)</del>	<del>+</del>
Addition invoses concept was	Metherralical Reinforchps	1	2	3	(
usuals to help w/ab; u	alno q addit	ttene- TeN ,			
1.2	Portions of the domain, class developed in the instruction			e missing or no	t well
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### MATHEMATICS: GRADE 7 - THE NUMBER SYSTEM - 7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	Summery and documental met. Gite examples from the		e domain, clus	ter, and stan	dard are
7.365.1a  1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers, represent addition and subtraction on a hotizonicio or vertical number line diagram.	Important Mathematical Ideas	/ <del>*!</del>	1	3	
a. Describe estuellans in which apposite quantities combine to make 0. For exemple, a hydrogen about has 0 charge because as neo constituent are apposed charged.  I did not set this shad shad shad shad a shad and shad shad shad shad shad shad shad sha	Skale and Procedures  Mathematical Relationships		2	,	4
addressed in this section.	Summary / Justification / E	vidence	2	,	•
1.2	Portions of the domain, clus developed in the instruction			missing or no	X well
	Overall Rating		1	i 3	<del></del>

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### Title of Instructional Materials: \_\_\_\_\_ MATHEMATICS: GRADE ? - THE NUMBER SYSTEM -- 7.NS

ly and extend previous understandings of operations with fractions dd, subtract, multiply, and divide rational numbers.	Summary and documentationst. Cite examples from the			ester, and sta	ndard are
8.1o  Apply and extend prantous understandings of addition and subtraction to add and subtractional numbers; represent addition and subtraction on a horizontal overlicial numbers; represent addition and subtraction on a horizontal overlicial numbers line discording.	Important Mathematical Ideas	+	1 2		
c. Understand subtraction of reliconal numbers as adding the additive inverse, $p-q+p+(-q)$ . Show that the distance between two resonal numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.  Shown in the state of the state of their contexts of their contexts.	Skills and Procedures  Mathematical Relationships	4	2	0	→
Canclusion on the rown: Visual & textual examples land to good stockent understanding.	Bummary / Justification / Ev	idence	2	3	
1.2	Portions of the donnin, char developed in the instruction			n missing or I	not well
 ·	Overall Railing	+	1 2	3	*
					72

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Apply and extend previous understandings of operations with fractions to add, subtrect, csultiply, and divide rational aumbers.  7.NS.3d  2. Apply and extend previous understandings of sudiplication and division and of fractions to multiply and dwde rational numbers.  d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number aumentus in 0s or	met. Cite as amples from the festerials.	Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	es Summery and documentation of how the domain, chaster, and standard
<ol> <li>Apply and extend previous understandings of sudiplication and division and of Kadisas to multiply and divide retional numbers.</li> <li>Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or</li> </ol>	Important Methermelical Ideas		met. Cite examples from the materials.
No mation of this.	State and Procedures  1 2 3 4  Mathematical Relationships 1 2 3 4  Summary / Jacobification / Evidence	Solve red world and methodedical problems trocking the tour operations with restored numbers. I  Compare down laporarch at which have the constant of applications applications applications applications applications applications applications applications.	Skills and Procedures  Skills and Procedures  1 2 3  Mathematical Relationships  2 3 4 4 5 4 4 5 4 4 5 4 5 4 5 4 5 4 5 4 5
ant 1	Portions of the domein, claster, and standard that are raisaing or not well developed in the bestructional meterials (if any):  Overall Rating	adicate the chapter(s), section(s), and/or page(s) reviewed.	Portions of the domain, claster, and standard that are missing or not we developed in the instructional materials (if any):  Overall Rating
	Reviewed By: Title of instructional Materials:	MATHEMATICS: GRADE 7 EXPRESSIONS AND EQUATIONS	Reviewed By:  Title of Instructional Materials:  7.EE
se properties of operations to generate equivalent expressions.	Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the meterials.	Use properties of operations to generate equivalent expressions.	Summary and documentation of how the domain, cluster, and standard- met. Cite examples from the meterials.
EE.1 pply properties of operations as strategies to add, subtract, factor, and spend linear appressions with rational coefficients.	Important Methacratical Meas	7.EE.2 Understand that rewriting an expression in different forms in a problem context one shed light on the problem and how the quantities in it are relet For example, a < 0.05e = 7.05e means that "increase by 5%" at the same "resultiply by 1.05".	important Methematical Ideas 4.1 1 2 3 and. 84
of like towns, which loads	State and Procedures  1 2 3  Methoristical Relationships	Good discussion about artist & praducer incom	Skills and Procedures  1 2 3  3 Mathematical Relebonships
to emze discussion of like	Summary / Justification / Bridence	Good active du relepment along the way:	Burnnary / Justification / Evidence
		2.2	Portions of the domain, cluster, and standard that are missing or not we
Qunit 2	Portions of the dossain, chaster, and standard that are missing or not well developed in the instructional meterials (if any):	7.4	developed in the instructional materials (if any):

MATHEMATICS: GRADE 7 — EXPRESSIONS AND EQUATIONS — 7 Schre real-life and mathematical problems using numerical and algorithm as pressions and equations.  7.EE.3  Solve multi-step real-life and mathematical problems posed with positive and sequence, using tools at singically, Aprily properties of operations to calculate with numbers in any form; convext between forms as appropriety; and seases the resconsibilities of alternative using montal computation and estimation strategies. For example II a scenar making \$25 an hour gets a celebration strill estimate and strategies. For example II a scenar making \$25 an hour gets of the centre of a door that it is contained and the center of a door that is 27.50 if yes went to place a towel for 0.94 suches line about 9 anches from each edge, this estimate, own be used as a check on the exact computation.  John Mathematical Scenario (1977) in the center of the exact computation.  John Mathematical Scenario (1978) in the center of	Summary and documentals stat. Gits examples from the supertent Mathematical Ideas Skills and Procedures	ion of how the domain, c e septerials.		MATHEMATICS: GRADE 7 — EXPRESSIONS AND EQUATIONS — 7  Bolive rest-life and methoestetical problems using surrectical and algebraic expressions and equations.  7.EE.4a  4. Use variables to represent quantities in a real-world or resthemation problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form μr + q = r and μ(x + q) = r, where μ, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perinteer of a ractangle is 54 cm. its length is 6 cm. What is its solit?	Summery and documentationst. Cite examples from the Important Mathematical Ideas	ion of how the dos	emotin, chiester, and standard a
MATHEMATICS: GRADE 7 — EXPRESSIONS AND EQUATIONS — 7 Schre real-life and mathematical problems using numerical and algorithm as pressions and equations.  7.EE.3  Solve multi-step real-life and mathematical problems posed with positive and sequence, using tools at singically, Aprily properties of operations to calculate with numbers in any form; convext between forms as appropriety; and seases the resconsibilities of alternative using montal computation and estimation strategies. For example II a scenar making \$25 an hour gets a celebration strill estimate and strategies. For example II a scenar making \$25 an hour gets of the centre of a door that it is contained and the center of a door that is 27.50 if yes went to place a towel for 0.94 suches line about 9 anches from each edge, this estimate, own be used as a check on the exact computation.  John Mathematical Scenario (1977) in the center of the exact computation.  John Mathematical Scenario (1978) in the center of	Summery and documentals stort. Oile susemples from the smortest Mathematical Ideas Skills and Procedures Mathematical Relationships	ion of how the domain, c e septerials.		MATHEMATICS: GRADE 7 — EXPRESSIONS AND EQUATIONS — 7  Bolive rest-life and methoestetical problems using surrectical and algebraic expressions and equations.  7.EE.4a  4. Use variables to represent quantities in a real-world or resthemation problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form μr + q = r and μ(x + q) = r, where μ, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perinteer of a ractangle is 54 cm. its length is 6 cm. What is its solit?	Summery and documentations. Cite examples from the important Mathematical Ideas Skills and Procedures	ion of how the dos	main, Chiester, and Standard
nigebraic expressions and equations.  7.EE.3  Bolve multi-step residits and statishematical problems posed with positive and negative rational numbers in any form (whole numbers, Sactions, and declarate), using tools strategically, Apply properties of operations to nacionate with numbers in any form; convent between forms as appropriate; and seases the reasonableness of answers using mental computation and estimation strategies. For example if a scenario metalog \$25 on hour gets a 10% raws, and well make an additional \$100 of her salvey an hour, or \$2.50, for a new salvey of \$27.50. If you sent to place a towel ber 9.34 inches long at the center of a door field \$2.71.2 inches well, you will need to place the bar about 9 inches from each edge, this estimate, can be used as a check on the exact computation.  John Computation and the chapter(s), section(s), section(s) page(s) reviewed.	stot. Cite examples from the important Methemetical Ideas Sidis and Procedures Methemetical Relationships	4 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Algebraic expressions and equations.  7.EE.4a  4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequatities to solve problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and rare specialir rational numbers. Solve equations of these forms fluently. Compare an algebraic solvian to an aritmetic solution, identifying the sequence of the operations tread in each approach. For example, the permisser of a ractangle is 54 cm. Its length is 6 cm. What is its width?	snet. Citis examples from the Important Mathematical Ideas States and Procedures		moto, chistor, and standard
algebraic expressions and equations.  7.EE.3  Bolvs multi-step real-file and suffinematical problems posed with positive and negative rational numbers is any form (whole numbers, Sactions, and declarate), using tools establiquely, Apply properties of operations to necludate with numbers in any form; convent between forms as appropriate; and seases the resconsibleness of enterests using mental computation and estimation strategies. For example if a scenario method \$25 on hour gets a 10% raws, and well make an additional \$100 of her salary an hour, or \$2.50, for a new salary of \$27.50. If you sent to place a towel for \$9.44 inches long at the center of a door field \$27.1/2 inches weds, you will need to place the fair about \$9 inches from each edge, this estimate can be used as a check on the exact computation.  John Committee of the contraction of the salary computation and the chapter(s), section(s), and/or page(s) reviewed.	stot. Cite examples from the important Methemetical Ideas Sidis and Procedures Methemetical Relationships	4 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Algebraic expressions and equations.  7.EE.4a  4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequatities to solve problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and rare specialir rational numbers. Solve equations of these forms fluently. Compare an algebraic solvian to an aritmetic solution, identifying the sequence of the operations tread in each approach. For example, the permisser of a ractangle is 54 cm. Its length is 6 cm. What is its width?	snet. Citis examples from the Important Mathematical Ideas States and Procedures		2 3
TEE.3  Rolve multi-step real-tile and sestimensical problems posed with positive and negative retional numbers is any form (whole numbers, &actions, and declarate), using tools setting(cally, Aprily properties of operations to calculate with numbers in any form; convext between forms as appropriety; and seases the resconsibilities of sharp services of enteriors using montal computation and estimation strategies. For example if a scenar making \$25 an hour gets a 10% raws, and well make an additional \$100 fine salary an hour, or \$2.5 fix a new salary of \$27.50 if yes went to place a towel bar 0.34 suchs as the center of a door that is 27.10 inches well, you will need to place the bar about 9 inches from each edge, this estimate, can be used as a check on the exact computation.  January 1.5 fixed the contraction of the contraction of the salary computation.	Skille and Procedures  Methemetical Relationships	+		7.E.4a 4. Use variables to represent quantities in a real-world or resthemation problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form pr + q = r and p(x + q) = r, where p, q, and r are specific rational numbers. Solve equations of these forms flavelly, Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For autoritie, the perinteer of a ractangle is 54 cm. its length at 5 cm. What is its width?	Skills and Procedures	1	1 1 2 3
and negative rational numbers in any form (whole numbers, Eachons, and descinately, using tools attengically, Apily properties of operations to calculate with numbers in any form; convent between forms an approprietic, and seases the reasonableness of enteress using manket computation and estimation establishes for example if a vicinian making \$25 an hour gots a 10% raise, are will make an additional 170 of the salary an hour, or \$2.50, for a new salary of \$27.50 if you want to place a tower be 8.34 sinches long at the contex of a door that is 27.1/2 sinches used, you will need to place the bar about 9 inches from each edge, this estimate on the used as a check on the exact computation.  John Computation of the exact computation of the exact computation and the exact computation are the edge, this estimate on the used as a check on the exact computation.	Skille and Procedures  Methemetical Relationships	+		problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.  a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solition to an entimeter solution, identifying the expenses of the operations used in each approach. For example, the parameter of a rectangle is 54 cm. As length at 5 cm. What is its width?	Skills and Procedures	1	1 1 2 3
and declarate), using tools at stanguisty, Apply properties of operations to calculate with numbers in any form; convert between forms are appropriete; and assess the reasonableness of ensearch using mental computation and estimation strategies. For example if a women making \$25 on hour gets a celtimation strategies. For example if a women making \$25 on hour gets or 10% rare, and well make an additional first of her salary am hour, or \$2.50, for a new salary of \$27.50 if you went to place a towel feer is 34 shokes long at the center of a door feet is \$27.10 entered useds, you will need to place the fair about 9 inches from each edge, this estimate can be used as a check on the search computation.  Indicate the chapter(s), section(s), and/or page(s) reviewed.	Mathernatical Relationships	+ 1 2 4 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	***	problems by researing about the quantities.  a. Solve word problems leading to equations of the form $px + q = r$ and $px + q = r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Solve equations of these forms fluently, Compare an algebraic solution to an artimate solution, identifying the equations of the operations used in each approach. For example, the parameter of a ractangle is 54 cm. Its length at 5 cm. What is its width?	State and Procedures	· · · · · · · · · · · · · · · · · · ·	1 1
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as the center of a door that is 27 1/2 inches used, you will need to place the barr about 9 inches than each edge, this estimate, can be used as a check on the sued computation.  Good Champy The estimate of the check of the ch		<del>                                      </del>	<del></del>	used in each approach. For exemple, the permiseer of a rectangle is 54 cm. Its length at 6 cm. What is its width?	Mathematical Relationships		<u>, , , , , , , , , , , , , , , , , , , </u>
bur about 9 inches from each edge, this estimate can be used as a check on the exact computation  Good Champion (S. S. S		1 2	• •	1	Methematical Relationships		1
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a A	Portions of the domain, clus	ater and standard 4-0 a	es mission er och mell	must had at protonnice.	Portions of the domain chie	abor and atendari	d that are missing or not wel
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MATHEMATICS: GRADE 7 — EXPRESSIONS AND EQUATIONS — 7.	<b>:E</b>			MATHEMATICS: GRADE 7 GEOMETRY 7.G			
Solve real life and mathematical problems using numerical and	Summary and documentationst. Cite examples from the		luster, and standard are	Draw, construct, and describe geometrical figures and describe the relationships between them.	Summery and documentation met. Cite examples from the		usin, chuster, and standard a
nigotraic expressions and equations. 7 EE 4b	N.M. C- 424   N.M.   N.M.	/	<del>/</del>	7.9.1	AND ONE STREET STORE AND		
Line variables to represent quantities in a real-world or mathematical	important Mathematical Ideas	++	<del>+</del> /-++∤/	Solve problems involving scale drawings of geometric figures, including	Important Mathematical Ideas	41	+
problem, and construct simple equations and inequalities to solve		1 2	· \ \ / //	computing actual lengths and areas from a scale drawing and reproducing a		1 7	2 3 \ 1
problems by reasoning about the quantities.			<b>&gt;</b>	scale drawing at a different scale.			_ ~
<li>b. Solve word problems leading to inequalities of the form ρx + q &gt; r or ρx + q &lt; r, where ρ, q, and r are specific rational numbers. Graph</li>	Sixtilis and Procedures	44		Text enjuryer structs to	Studie and Procedures		
the solution set of the inequality and interpret it in the context of the		1 2	• ( • )//	the state of	\$	1 2	2 (3/ )
problem. For example: As a salesperson, you are pard \$50 per week	1	•		Live los their own regardion of class roomy therefore attentions			
plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and				( State Hereitarto			
describe the solutions.	Mathematical Heliationships	<del>41 - 1 -</del>		Chassing & marine	Methernatical Relationships	4	
- THAMA WAYS TO EXP IN	1 ths convac	or practical	パマッチット・ブレー	Stadents Stor of Store quite 3		1 2	' ' ( <sup>3</sup>
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plus it discussed why a	Portions of the Somein, clus	stor, and standard that a	re missing or not well	bedicate the chapter(a), section(s), and/or page(s) reviewed.			
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	Title of Instructional Materials:		Title of Instructional Materials:
MATHEMATICS: GPADE 7 - GEOMETRY - 7.0		MATHEMATICS: GRADE? - STATISTICS AND PROBABILITY?	SP.
Solve real life and mathematical problems involving engle measure,	Summary and documentation of how the domain, cluster, and standard are		Summary and documentation of how the domain, cluster, and standard
area, surface area, and volume.	met. Cite examples from the majoriels.	Use random sampling to draw inferences about a population.	met. Cite examples from the meterials.
7.9.5	Important Mathematical Ideas	7.8P.1	Important Mathematical Ideas
Boive real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles		Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about	1 1 2 3
quadristerals, polygons, cubes, and right priems.		a population from a sample are valid only if the eartiple is representative of that population, Understand that random sampling tends to produce	
Some orutive problems	Side and Procedures	representative samples and support valid interences.	Skills and Procedures 4-1
	] ' ' ' ' '	Kandomness has a decent	~   1 / 2 3
are provided, but they are	Mathematical Relationships	1 / h h h m m	
Some practice problems are provided, but they lack man-world connections.	Metherneboot Relationships	discussion; however, them	2 3
Mai-warld commentally.		LI I them	annor
	Summary I Justification I Evidence	13 Not dussaussen in the Some	Summary / Justification / Evidence
		that standard desires, budies to the chapter (a), excellently, excelle	
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11.0	Portions of the domain, cluster, and standard that are missing or not well		Portions of the domain, cluster, and standard that are missing or not we
Unit 3	developed in the instructional materials (if any):	11145	developed in the instructional materials (if any):
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	Title of Instructional Materials:		Title of Instructional Materials:
MATHEMATICS; GRADE 7 - STATISTICS AND PROBABILITY - 1	C.SP	MATHEMATICS: GRADE 7 - STATISTICS AND PROBABILITY - 7.	SP .
	Summary and documentation of how the domain, chaster, and standard are		Summary and documentation of how the domain, cluster, and standard a
Use random nampling to draw informers about a population.	met. Cite examples from the state feet.	Oran informal comparative inferences about two populations.	met. Cite examples from the distorials.
7.6P.2 Use data from a random sample to drew inferences about a population	Important Mathematical Ideas	7.8F.3 informally seeses the degree of visual overlap of two numerical data.	Important Mathematical Ideas
with an unknown characteratic of interest. Generate multiple samples (or acculated samples) of the semisable to gauge the variation in estimates	1 2 3 4	distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For	1 2 3
or predictions. For exemple, estimate the mean word length in a book by		example, the mean height of players on the basketball team is 10 cm	Transport of the Control of the Cont
randomly sempling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the	Skills and Procedures	greater than the mean height of players on the accourteam, about twice the variability (mean absolute deviation) on either team; on a dot plot, the	Stalls and Procedures
eebniate or prediction might be.	1 ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	separation between the two distributions of heights is noticeable.	
Not addressed	Methematical Relationships	Not addressed	Methematical Relationships
No water of	1 / 2 3 4	Var agentin	1 2 3
	$\vee$		
	Summery I Justification / Evidence		Summary / Justification / Evidence
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T NATHEMATICE: GRADE 7 - GEOMETRY - 7.G	title of Instructional Materials:	MATHEMATICS: GRADE 7 GEOMETRY 7.G	Title of Instructional Maserials:
Draw, construct, and describe geometrical figures and describe the elatorships between them.	Summary and documentation of how the dozseln, chister, and standard are met. Cite examples from the meterials.	Draw, construct, and describe geometrical figures and describe the relationships between them.	Summery and documentation of how the domain, cluster, and standard at met. Ole examples from the materials.
relationships between them.  1.0.2  There (treshand, with ruler and pretractor, and with technology) geometric thapse with given conditions. Focus on constructing triangles from three measures of angles or cisian, editions when the conditions determine a arrival arrival, smooth an one triangle, on the triangle, more than one triangle, or no trangle.  Local construction or or no trangle.	State and Procedures  1  3  4  State and Procedures	Patablookings between them.  7.9.3  Describe the two-dimensional Squree that result from slicing three-dimensional Squree, as in plane sections of right rectangular prisons and right rec	Important Methernetical Ideas  1 2 5 4  State and Procedures
with 3	Portions of the domain, cheeter, and standard that are missing or not well developed in the instructional materials (if any):  Overall Refing	Indicate the chapter(s), section(s), and/or page(s) reviewed.	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
ze Charles A. Dinn Center	35	The Charles A. Dania Ception	1 2 3 4
	teviewed By:		Reviewed By: Title of Instructional Materials:
loive resi-life and mathematical problems involving angle measure, res, surface area, and volume.	Summary and documentation of how the domain, cheese, and standard are not. Cite examples from the materials.	Solve real-Be and mathematical problems involving engin measure, area, surface erea, and volume.	Summery and documentation of how the domain, cluster, and standard a met. Cite examples from the meterials.
TOUR MEMORIAL STATE AND ADDRESS AND ADDRES	Important Methernation ideas 4 1 2 5 4	T.O.S  Lies facts about supplementary, complementary, vertical, and adjacent angles in a study-step problem to write and eclive sample equations for an unknown ringle in a figure.  Good VIS wals, g. A. A.A.	Important Mathematical Ideas  1 2 3
dava frield homover, it is lacking indepth.	Mathematical Relationships  1 2 3 4  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	developed through terms of concepts, more practice	Mathematical Relationships  1 2 3 5  Mathematical Relationships 1 2 3
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Reviewed By:

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stigate chance processes and develop, use, and evaluate ability models.	Summary and documentation of hirer the domain, cluster, and standard are met. Cite examples from the meterials.	bryestigate chance processes and develop, use, and evaluate probability models.	Surremary and documentation of how the domain, chister, and ster met. Cite examples from the materials.
:7b Develop a probability model and use it to find probabilities of events. Compara probabilities from a model to observed frequencies; if the	important Mathematical Ideas 41 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7.8P.6s  8. Find probabilities of nempound events using organized liets, tables, tre- degrams, and simulation.	Important Mathematical Ideas
yeament is not good, explain possible sources of the discrepancy.  Develop a probability seedal (which may not be uniform) by observing traquencies in data generated from a chance process. For	Sids and Procedures 4.1	<ul> <li>Indentend that, just as selfs elemple events, the probability of a compound event is the faction of outcomes in the sample space to which the compound event count.</li> </ul>	State and Procedures
example, find the approximate probability that a spinning penny will lend heads up or that a fossed paper oup will lend open-end down. On the outcomes for the spinning penny appear to be equally Mely:	1 1 2 3 4 4 1	Good tables & discus	
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ne informal comparative inferences about two populations.	Summary and documentation of how the domain, chaster, and atendard are met. Cite examples from the materials.	Investigate chance processes and develop, use, and evaluate probability models.	Summery and documentation of how the domain, cluster, and standard a met. Cite examples from the materials.
P.4	Important Methematical Mess	7.89.6	
e measures of center and measures of vertability for numerical data; n random samples to draw informal comparative inferences about her		Understand that the probability of a chance event is a number between 0 and 1 that expresses the littelfhood of the event occurring. Larger numbers	Important Mathematical Ideas
ilations. For example, decide whether the words in a chapter of a nth-grade acrence book are generally longer than the words in a cha		indicate greater Skeihood. A probability near 0 indicates an unlikely event.	
fourth-grade sounce book.	Skills and Procedures	a probability around 1/2 indicates an event that is neither unitiely nor likely, and a probability near 1 indicates a likely event.	Skills and Procedures
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The Charles A. Danie Conter

Reviewed By.

## SpringBoard

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	Mark and Described					Summary/	Missing pieces	T
	Mathematical Practices					Justification/Ev		Overall
		Chapter/Section/Page				idence	Practice	Rating
	Make sense of problems and persevere in solving them.					1.00.000		4
		See page 6 of 7 in intro	oductory lette	er.				
	2. Reason abstractly and quantitatively.	See page 6 of 7 in intro	oductory lette	er.				4
	3. Construct viable arguments and critique the reasoning of others.		, , , , , , , , , , , , , , , , , , , ,			I chose not to spend time on		4
		See page 6 of 7 in intro	oductory lette	er.		this series as I	4	
	4. Model with mathematics.	See page 6 of 7 in intro	nductory lette	or		the level of boo	4	
	5. Use appropriate tools strategically.	See page 0 01 7 III III II	budctory lette			analyze. I feel i		_
	3. Ose appropriate tools strategically.	See page 6 of 7 in intro	oductory lette	er.		series for the n high ability stu		4
	6. Attend to precision.					experienced, G		4
		See page 7 of 7 in intro	oductory lette	er.		_		
	7. Look for and make use of structure.	See page 7 of 7 in intro	oductory lette	er.				4
	8. Look for and express regularity in repeated reasoning.							4
		See page 7 of 7 in intro	oductory lette	er.				
7.RP	Ratios and Proportional Relationships					Summary/	Missing	
			Important	Skills and	Math	Justification/Ev		Overall
	Analyze proportional relationships and use them to solve real-world and	Chapter/Section/Page	Math Ideas	Procedures	Relationships	idence	Standards	Rating
7.RP1	mathematical problems. Compute unit rates associated with ratios of fractions, including rations of lengths, areas and other quantities measured in like or different units. For example, If a person walks $1/2$ mile in each $1/4$ , complete the unit rate as the complex fraction $1/2$ miles per hour, equivalently 2 miles per hour.	Listed in Correlations Chart (1)						3
7.RP.2	Recognize and represent proportional relationships between quantities.							3
7.RP.2a	Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the organ.	Listed in Correlations Chart (3)						3
7.RP.2b	Identify the constant or proportionality ( <i>unit rate</i> ) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships	Listed in Correlations Chart (27)						4
7.RP.2c	Represent proportional relationships by equations. For example, if total cost $t$ is proportional to the number $n$ of items purchased at a constant price $p$ , the relationship between the total cost and the number of items can be expressed as $t = pn$ .	Listed in Correlations Chart (13)						3
7.RP.2d	Explain what a point $(x, y)$ on a graph of a proportional relationship means in terms of the situation, with special attention to the points $(0,0)$ and $(1, r)$ where $r$ is the unit rate.	Listed in Correlations Chart (3)						3

7.RP.3	Use proportional relationships to solve multistep and percent problems.  Examples: simple interest, tax, markdowns, quantities and commissions, fees, percent increases and decrease, percent error.	Listed in Correlations Chart (21)			4
	THE NUMBER SYSTEM - 7.NS				
7.NS	Apply and extend previous understandings of operations with fractions to				6468888888888
	add, subtract, multiply, and divide rational numbers.				
7.NS.1.a	Apply and extend previous understandings of addition and subtractions to add				
	and subtract rational numbers; represent addition and subtraction on a				
1	horizontal or vertical number line diagram. A. Describe situations in				
	which opposite quantities combine to make 0. For example, a hydrogen atom	Listed in Correlations			
	has 0 charge because its two constituents are oppositely charged.	Chart			
7.NS.1b	Apply and extend previous understandings of addition and subtractions to add				
	and subtract rational numbers; represent addition and subtraction on a				
	horizontal or vertical number line diagram. B. Understand $p + q$ as the				
	number located a distance $ q $ from $p$ , in the positive or negative direction				
	depending on wither q is positive or negative. Show that a number and its				
	opposite have a sum of 0 (are additive inverses). Interpret sums of rotational				
	numbers by describing real-world contexts.	Listed in Correlations			
		Chart			
7.NS.1c	Apply and extend previous understandings of addition and subtractions to add			 	:
	and subtract rational numbers; represent addition and subtraction on a				
	horizontal or vertical number line diagram. C. Understand				
	subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$ .				
	Show that the distance between two rational numbers on the number line is				
	the absolute value of their difference, and apply this principle in real-world				
	contexts.	Listed in Correlations			
7 NC 4	1	Chart		 	
7.NS.10	Apply and extend previous understandings of addition and subtractions to add and subtract rational numbers; represent addition and subtraction on a		:		
	horizontal or vertical number line diagram.				
	D. Apply properties of operations as strategies to add and subtract rational	Listed in Correlations			
	numbers	Chart			
7.NS.2a	Apply and extend previous understandings of multiplication and division and of				
	fractions to multiply and divide rational numbers. A. Understand that				
1	multiplication is extended from fractions to rational numbers by requiring that				
	operations continue to satisfy the properties of operations, particularly the				
	distributive property, leading to produces such as $(-1)(-1) = 1$ and the rules for	•			
	multiplying signed numbers. Interpret products of rational numbers by	Listed in Correlations			
	describing real-world contexts.	Chart			

7.NS.2b	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. B. Understand that integers can be divided. Provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If $p$ and $q$ are integers, then $-(p/q) = (-p)lq = pl(-q)$ . Interpret quotients of rational numbers by describing real-world contexts.						
7.NS.2c	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. C. Apply properties of operations as strategies to multiply and divide rational numbers.	Listed in Correlations Chart					
7.NS.2d	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. D. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.	······································			and an annual results of the second s		
7.NS.3	Solve real-world and mathematical problems involving the four operations with rational numbers. (Computations with rational numbers extend the rules for manipulating fractions to complex fractions).	Listed in Correlations Chart					
7.EE	EXPRESSIONS AND EQUATIONS - 7.EE  Use properties of operations to generate equivalent expressions.						
7.EE.1	Apply properties of operations as strategies to add and subtract , factor, and	Listed in Correlations					
/	expand linear expressions with rational coefficients.	Chart				: :- :-	
7.EE.2	Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."	Listed in Correlations Chart			*		
	Solve real-life and mathematical problems using numerical and algebraic expressions and equations.						
7.EE.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess						
	the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making \$25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or \$2.50, for a new salary						
	of \$27.50. If you want to place a towel bar 9 % inches long in the center of a door that is 27 % inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.	limalia o mini					
		Listed in Correlations Chart					
L		Chait	<u>:                                    </u>	 •		<u> </u>	<u>.:</u>

7.EE.4a	Use variables to represent quantities in a real-world or mathematical problem and construction simple equations and inequalities to solve problems by reasoning about the quantities.  A. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm. its length is 6 cm. What is its width?	sted in Correlations	
	Use variables to represent quantities in a real-world or mathematical problem and construction simple equations and inequalities to solve problems by reasoning about the quantities.  B. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid \$50 per week plus \$3 per sale. This week you want your pay to be at least \$100. Write in inequality for the number of sales you need to make, and describe the solutions.	sted in Correlations nart	
	GEOMETRY - 7.G		
	Draw, construct, ad describe geometrical figures and describe the relationships between them.		
7.G.1	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	sted in Correlations nart	
7.G.2	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	sted in Correlations hart	
7.G.3	Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	sted in Correlations hart	
7.G.4	Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.  Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	sted in Correlations hart	
7.G.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and simple equations for an unknown angle in a figure.	sted in Correlations hart	
7.G.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	sted in Correlations hart	

7.SP	STATISTICS AND PROBABILITY - 7.SP	
·	Use random sampling to draw inferences about population.	
7.SP.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Listed in Correlations Chart
7.SP.2	Use date from random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.  Draw informal comparative inferences about two populations.	Listed in Correlations Chart Listed in Correlations
7.SP.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.	Listed in Correlations Chart
7.SP.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.  Investigate chance processes and develop, use and evaluate probability models.	- Listed in Correlations Chart
7.SP.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate grater likelihood. A probability near 0 indicates an unlikely event. A probability around 1/2 indicates an event that in neither unlikely or likely and a probability near 1 indicates a likely event.	,

7.SP.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability, For example. When a rolling a number cube 600 time, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.	Listed in Correlations Chart
7.SP.7a	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy.  A. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.	Listed in Correlations Chart
7.SP.7b	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. B. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. For example, find the approximate probability that a spinning penny will land on heads up or that a tossed paper cup will land openend down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?	
7.SP.8a	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.  Understand that, just as with sample events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound	Listed in Correlations Chart
7.SP.8b	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.  B. Represent sample spaces for compound events using mentors' such as organized lists, table, and tree diagrams', For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.	Listed in Correlations Chart
7.SP.8c	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.  C. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the questions: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?	Listed in Correlations Chart